Department of
Agriculture

Rural Business–
Cooperative
Service

RBS Service
Report 57

USDA

Farmer Cooperative Statistics, 1998

Abstract

A survey of all U.S. farmer cooperatives ending their business years during calendar year 1998 showed a net income of $1.7 billion, down from $2.3 billion in 1997. Gross and net business volumes were down for the 3,651 cooperatives in the survey. Assets, liabilities, and net worth were up. Business volume by commodity handled is reported for all cooperatives and by State for 1997. Number of cooperatives, cooperative memberships, and number of employees are classified according to marketing, farm supply, and service function. Trends in cooperative numbers, memberships, employees, business size, sales volume, net income, assets, liabilities, and net worth are reported along with data on selected activities of other service organizations.

Keywords: cooperatives, statistics, business volume, employees, memberships, balance sheet, net income.

Farmer Cooperative Statistics, 1998

Charles A. Kraenzle, Ralph M. Richardson,
Celestine C. Adams, Katherine C. DeVille,
and Jacqueline E. Penn

U.S. Department of Agriculture
Rural Development
Rural Business-Cooperative Service
STOP 3256
1400 Independence Ave., S.W.
Washington, DC 20250-3256

Service Report 57

November 1999

Price: Domestic—$5.00;
Foreign—$5.50

Preface

Farmer cooperative statistics are collected annually to provide information on the progress and trends in cooperatives' growth and development. Many people use these statistics for research, technical assistance, education, planning, and public policy. Acquiring, analyzing, and disseminating farmer cooperative statistics is authorized by the Cooperative Marketing Act of 1926.

This report provides aggregate information on the number, membership, business volume, net income, and full-time employees of farmer cooperatives whose business years ended in 1998. Cooperatives are classified by principal product marketed and major function. Fishery cooperatives are included as miscellaneous marketing cooperatives. Both gross (includes intercooperative business) and net (excludes intercooperative business) dollar volumes are reported.

Statistics for 1998 were compiled on a national basis. State data on cooperative business volume and memberships are reported for 1997. State data are collected every other year.

The information was collected from individual farmer and fishery cooperatives by a mail survey of all organizations identified by USDA's Rural Business-Cooperative Service (RBS) as a farmer or aquacultural cooperative. Information was requested for cooperatives' 1998 business years.

RBS conducts an annual census because of the need to make more accurate estimates for all cooperatives and to use current data on cooperatives for research, education, and technical assistance purposes. Information obtained from individual cooperatives is combined to maintain confidentiality.

Statistics for all cooperatives were derived by adding data estimated for nonrespondents to respondent data. Responses to the 1998 survey accounted for 91 percent of the total gross sales of farmer cooperatives.

RBS depends on the cooperative community's response to its annual survey to develop a detailed and comprehensive set of statistics on farmer cooperatives. The time and effort taken to provide information and the timeliness with which it is furnished are greatly appreciated.

Contents

HIGHLIGHTS v
I—DEFINITION OF A FARMER COOPERATIVE 1
Classification of Cooperatives 1
Organizational Membership Structures 2
II—1998 STATISTICS 2
Number of Cooperatives 3
Memberships 5
Employees 5
Total Labor Expense 8
Business Size 9
Business Volume 9
Net Income 14
Balance Sheet 16
Selected Financial Ratios 18
III—COOPERATIVE TRENDS, 1989-98 21
Number of Cooperatives 21
Memberships 22
Employees 23
Business Volume 24
Net Income 26
Balance Sheet 26
IV—OTHER SERVICE COOPERATIVES 27
Farm Credit System 27
Rural Telephone Cooperatives 30
Rural Electric Cooperatives 30
Rural Credit Unions 31
Dairy Herd Improvement Associations 31

TABLES
Table 1— Number of cooperatives and memberships, by major business activity, 1998. 2
Table 2— Number of cooperatives, by major function and State, 1998 4
Table 3— Full-time and part-time and seasonal employees of farmer cooperatives, by type of cooperative, 1997-98 7
Table 4— Average total labor expense for cooperatives reporting, by selected type and size, 1997-98 10
Table 5— Total sales per dollar of total labor expense for cooperatives reporting, by selected type and size, 1998 11
Table 6— Farmer cooperatives and memberships, by gross business volume, 1998 12
Table 7— Cooperatives' gross and net business volumes by commodity, 1998 13
Table 8— Farmer cooperatives' net income, 1998 15
Table 9— Combined balance sheet data for farmer cooperatives, 1998 17
Table 10— Combined assets for farmer cooperatives, 1998 18
Table 11— Selected financial ratios for cooperatives, 1998 19
Table 12— Number of farmer cooperatives, 1989-98 21
Table 13— Estimated number of branches operated by grain and farm supply cooperatives, 1992-98 23
Table 14— Memberships in marketing, farm supply, and service cooperatives, 1989-98 24
Table 15— Cooperatives' number of full-time employees, 1994-98 25

Contents

Table 16— Cooperatives' net business volume, 1989 and 1998 26
Table 17— Cooperatives' gross and net business volumes, 1989-98 29
Table 18— Net income of farmer cooperatives, 1989-98 30
Table 19— Combined balance sheet data for farmer cooperatives, 1989-98 31
Table 20— Farm Credit Association Structure, Jan. 1, 1999 32
Table 21— Farm Credit System's combined assets, net worth, and net income, 1994-98 33
Table 22— Farm Credit Banks' combined assets, net worth, net loans, and net income, 1994-98 33
Table 23— Combined assets, net worth, net loans, and net income of the St. Paul Bank for Cooperatives and CoBank, ACB, 1994-98 33
Table 24— Number, participation, and level of activity of rural telephone cooperatives, by State, Dec. 31, 1998 34
Table 25— Number, participation, and level of activity of rural electric cooperatives, by State, Dec. 31, 1998 35
Table 26— Number, participation, and level of activity of rural credit unions, by State, Dec. 31, 1998 36
Table 27— Number, participation, and level of activity of dairy herd improvement associations, by State, Dec. 31, 1998 37

FIGURES
Figure 1— Number of Cooperatives by Function, Leading States, 1998 3
Figure 2— Branches of Grain and Farm Supply Cooperatives by Size, 1998 5
Figure 3— Distribution of Memberships by Type of Cooperative, 1998 6
Figure 4— Cooperative Memberships Grouped by Function and Gross Business Volume, 1998 6
Figure 5— Full-Time and Part-Time and Seasonal Employees, by Type of Cooperative, 1998 8
Figure 6— Average Number of Full-Time and Part-Time and Seasonal Employees, by Type of Cooperative, 1998 9
Figure 7— Distribution of Farmer Cooperatives and Gross Business Volume, by Size, 1998 12
Figure 8— Relative Importance of Farm Products Marketed by Cooperatives, 1998 14
Figure 9— Relative Importance of Farm Supplies Handled by Cooperatives, 1998 15
Figure 10— Total Net Income or Loss by Cooperative Type, 1998 16
Figure 11— Percentage of Cooperatives' Assets Financed by Net Worth, by Cooperative Type, 1998 17
Figure 12— Farmer Cooperatives in the United States, 1989-98 21
Figure 13— Cooperatives Removed from RBS' List, 1989-98 22
Figure 14— Grain and Farm Supply Cooperatives and Branches, 1992-98 24
Figure 15— Cooperatives' Memberships by Function, 1989-98 25
Figure 16— Cooperatives' Net Business Volume, 1989-98 27
Figure 17— Cooperatives' Net Sales of Selected Commodities, 1989-98 28
Figure 18— Cooperatives' Net Sales of Selected Farm Supplies, 1989-98 28
Figure 19— Cooperatives' Net Income, 1989-98 30
Figure 20— Cooperatives' Net Worth and Liabilities, 1989-98 32

Contents

APPENDIX TABLES 38
Appendix Table 1— Number of cooperatives and memberships, by major business activity and State, 1997 39
Appendix Table 2— Cooperatives' business volume, by commodity and State, 1997 43

APPENDIX FIGURES 51
Appendix Figure 1— Cooperatives' Net Business Volume, 1974-98 52
Appendix Figure 2— Cooperatives' Gross and Net Business Volumes, 1974-98 52
Appendix Figure 3— U.S. Farms and Farmer Cooperative Memberships, 1974-98 53
Appendix Figure 4— Distribution of Farmer Cooperatives by Type, 1998 53
Appendix Figure 5— Distribution of Total Net Income by Type of Cooperative, 1998 54
Appendix Figure 6— Distribution of Total Losses by Type of Cooperative, 1998 54
Appendix Figure 7— Distribution of Total Net Worth by Type of Cooperative, 1998 55
Appendix Figure 8— Distribution of Total Full-time Employees by Type of Cooperative, 1998 55
Appendix Figure 9— Assets Per Full-Time Employee, by Type of Cooperative, 1998 56
Appendix Figure 10— Cooperatives' Investments in and Patronage Refunds Received from Other Cooperatives, 1989-98 56

Highlights

Both gross and net business volumes dropped and net income declined significantly in 1998 according to a survey of marketing, farm supply, and related-service cooperatives by USDA's Rural Business-Cooperative Service (RBS). Although the number of cooperatives and memberships declined, total assets, total liabilities, net worth, and number of full-time employees increased.

- Total gross business volume (includes intercooperative business) handled by cooperatives dropped 4.5 percent, to $121 billion in 1998 from $126.7 billion in 1997.

- Total net business (excludes intercooperative business) dropped 1.9 percent, or $2 billion, to $104.7 billion from $106.7 billion.

- Total net income of $1.7 billion was down 24.7 percent from the $2.3 billion reported in 1997. The 1998 net included intercooperative dividends and refunds of $573 million—down 24.3 percent from $757.1 million. This included, reporting for the first time, refunds from CoBank and the St. Paul Bank for Cooperatives.

- The number of cooperatives declined 3.7 percent, from 3,791 to 3,651.

- Grain and farm supply cooperatives operated an estimated 5,617 branches in 1998, up from 5,433 in 1997.

- Cooperative memberships were 3,352,577, down 2.1 percent from 3,424,168 in 1997.

- Cooperatives employed 173,791 full-time and 91,799 part-time and seasonal employees in 1998. Numbers of full-time employees increased 0.9 percent, while part-time and seasonal employees decreased 4.8 percent.

- Gross value of farm products marketed by cooperatives in 1998 decreased 1.7 percent, to $84.5 billion from $85.9 billion. Net value of these farm products, after eliminating intercooperative business, was $76.6 billion, down 1.5 percent from $77.8 billion.

- Gross value of farm supplies handled by farmer cooperatives was down 11.1 percent, to $33 billion from $37.1 billion. After adjusting for intercooperative business, the decrease was 2.5 percent, to $24.6 billion from $25.2 billion.

- Receipts for services related to marketing farm products and handling farm supplies, plus other income, decreased 4.8 percent to $3.5 billion.

- Combined assets for all farmer cooperatives increased 5.8 percent to $46.6 billion from $44 billion. Net assets, after eliminating intercooperative investments, was up 6.2 percent, to $41.9 billion from $39.4 billion. This included investments in CoBank and the St. Paul Bank for Cooperatives.

- Total liabilities of $26.6 billion was up 4.5 percent from $25.5 billion.

- Net worth, or member and patron equity, rose 7.6 percent to nearly $20 billion from $18.5 billion. Member and patron equity financed 42.9 percent of total assets, up from 42.1 percent in 1997.

Highlights

HIGHLIGHTS CAPSULE

	1997	*1998*	*Change*
Number of cooperatives	3,791	3,651	-140
Memberships	3,424,168	3,352,577	-71,591
Gross business volume (mil. dol.)	126,673	120,961	-5,712
Net business volume (mil. dol.)	106,670	104,667	-2,003
Net income (mil. dol.)	2,314	1,742	-572
Total assets (mil. dol.)	43,996	46,560	2,564
Net worth (mil. dol.)	18,537	19,954	1,417
Full-time employees	172,199	173,791	1,592
Part-time and seasonal employees	96,472	91,799	-4,673
Leading States	**1995**	**1997**	
	Minnesota	Minnesota	
Number of cooperatives	389	368	-21
	Minnesota	Minnesota	
Memberships	329,241	296,058	-33,183
	California	Iowa	
Net business volume (mil. dol.)	8,891	10,941	N/A

FARMER COOPERATIVE STATISTICS, 1998

Charles A. Kraenzle, Ralph M. Richardson, Celestine C. Adams,
Katherine C. DeVille, and Jacqueline E. Penn
Rural Business-Cooperative Service

I—Definition of a Farmer Cooperative

The Rural Business-Cooperative Service (RBS) of USDA's Rural Development mission area considers four major criteria in identifying an organization as a farmer cooperative: (1) membership is limited to persons producing agricultural and aquacultural products and to associations of such producers; (2) cooperative members are limited to one vote regardless of the amount of stock or membership capital owned, or the cooperative does not pay dividends on stock or membership capital in excess of 8 percent a year, or the legal rate in the State, whichever is higher; (3) business conducted with nonmembers may not exceed the value of business done with members; and (4) the cooperative operates for the mutual interest of members by providing member benefits on the basis of patronage.

These criteria may create larger or smaller numbers of farmer cooperatives than found in lists or directories of State agencies or cooperative councils. RBS includes only marketing, farm supply, and related-service cooperatives on its list. Fishery cooperatives are included with miscellaneous marketing cooperatives. Wool pools are included as marketing cooperatives. Livestock shipping associations and rice drying cooperatives, beginning with 1992 and 1993, respectively, are considered service cooperatives.

Many State lists include other types, such as production, credit, telephone, electric, and consumer cooperatives, as well as those that do not meet RBS' definition. Other reasons for possible differences in the number of cooperatives are that: (1) RBS may not learn of certain cooperatives operating in a State for a considerable period of time; (2) a cooperative may not have completed and returned an initial questionnaire; or (3) no notice is received that a cooperative discontinued operating.

Year-to-year comparisons with specific commodity groups, therefore, should reflect any differences in lists and classifications in State and Federal data.

Classification of Cooperatives

Statistics are presented according to a cooperative's major function or classification—marketing, farm supply, and related-service.

Marketing cooperatives derive most of their total dollar volume from the sale of members' farm products. RBS classifies these cooperatives into one of 13 commodities or commodity groups depending upon which accounts for most of its business volume. RBS may reclassify a cooperative into a different commodity category if its primary business volume changes.

Farm supply cooperatives derive most of their business volume from the sale of farm production supplies. These cooperatives handle a wide variety of supplies, farmstead equipment, and building materials. Many also handle farm and home items such as heating oil, lawn and garden supplies and equipment, and food.

Service cooperatives provide specialized business services related to the agricultural business operations of farmers, ranchers, or cooperatives such as cotton ginning, trucking, storing, drying, and artificial insemination. Livestock shipping associations were reclassified from marketing to service in 1992. Rice drying cooperatives, added in 1993, previously were listed with rice marketing cooperatives.

Many cooperatives handle multiple commodities and provide both marketing and farm supply services, as well as the facilities and equipment used to perform

these services. These associations are classified according to the predominant commodity or function, as indicated by their business volume.

Information on other types of service cooperatives, such as Farm Credit System institutions, rural credit unions, rural electric cooperatives, and dairy herd improvement associations, is presented separately.

Organizational Membership Structures

Centralized

Of the 3,651 farmer cooperatives in 1998, 3,546 were centralized organizations, mostly locals with individual farmer-members. Centralized cooperatives usually serve a local area or community, county, or several counties. Most usually perform a limited number of initial marketing functions. Most farm supply sales are at the retail level. A few centralized cooperatives, principally regionals, operate over large geographic areas and have members in several States. They often provide more vertically integrated services, such as processing farm products or manufacturing feed and fertilizer.

Bargaining associations also have a centralized organizational structure. They derive all or most of their business volume from negotiating with distributors, processors, and other buyers and sellers over price, quantity, grade, terms of sale, and other factors involved in marketing farm products. Only a few bargain to purchase farm supplies. While the primary function of such an association is to bring buyers and sellers together to contract for the sale of members' products, many bargaining associations now perform additional functions.

For example, dairy bargaining associations at one time only negotiated price. Now, many perform additional functions, such as physically handling part of the milk for spot sales. They, like other dairy marketing cooperatives, represent their members at Federal or State milk marketing order hearings.

Federated

Federated cooperatives comprise two or more member associations organized to market farm products, purchase production supplies, or perform bargaining functions.

The 63 federated associations often operate at points quite distant from their headquarters. Federated cooperative members are usually local cooperatives, although some are interregional associations with regional cooperative members.

Mixed

A few cooperatives have both individual farmer-members and autonomous cooperative members, a combination of centralized and federated structures. They serve large geographic areas, with members in many States, and provide a variety of integrated services. RBS has identified 42 such cooperatives.

II—1998 STATISTICS

Cooperatives' net business volume was $104.7 billion in 1998, down from $106.7 billion in 1997 and the first drop in business volume since 1991. Net income of $1.7 billion was down from $2.3 billion in 1997, a drop of 24.7 percent. That was the lowest income level since 1993 and well off the income record of $2.36 billion set in 1995. Numbers of cooperatives

Table 1— **Number of cooperatives and memberships, by major business activity, 1998**

Major business activity	Cooperatives	Memberships
	Number	
Beans and peas, dry edible	8	2,872
Cotton	15	41,255
Dairy	228	92,892
Fruits and vegetables	249	43,953
Grains and oilseeds[1]	964	728,694
Livestock	80	161,515
Nuts	18	46,029
Poultry[2]	18	36,329
Rice	17	12,865
Sugar[3]	52	15,915
Tobacco	26	172,823
Wool and mohair	91	17,911
Miscellaneous	97	25,303
Total marketing	1,863	1,398,356
Farm supply	1,347	1,773,659
Service	441	180,562
Total	3,651	3,352,577

[1] Excludes cotton. Cottonseed sales were included with cotton. Cottonseed meal and oil were included with feed and miscellaneous, respectively.
[2] Includes eggs, turkeys, ratite, squab, and related products.
[3] Includes beets, sugarcane, honey, and related products.

and memberships, at 3,651 and 3,352,577, respectively, were down. Combined assets, net worth, and liabilities were all up.

Number of Cooperatives

The 1998 survey accounted for 3,651 marketing, farm supply, and related-service[1] cooperatives, compared with 3,791 in 1997. The net decrease of 140 associations (3.7 percent) largely reflects a continuing trend involving dissolution, merger, or acquisition. The largest decrease was in grain and oilseed (grain) cooperatives (50), followed by farm supply (39). Wool cooperatives increased by three and nut, dry bean, and sugar each increased by one.

Of the 3,651 cooperatives, 1,863 primarily marketed farm products, 1,347 primarily handled farm production supplies, and 441 provided services related to marketing or purchasing activities (table 1).

Marketing cooperatives decreased slightly, from 51.2 percent in 1997 to 51 percent of the total number of cooperatives in 1998, while farm supply cooperatives increased slightly, from 36.6 to 36.9 percent. Related-service cooperatives decreased slightly, from 12.2 to 12.1 percent.

These percentage changes to some extent reflect reclassification because of annual dollar volume changes. In any given year, sales of farm supplies or grains and oilseeds can be higher due to market supply and demand conditions.

Cooperative numbers by marketing and farm supply and service functions by State are shown in table 2. North Dakota is the leading State in marketing cooperatives (157), followed closely by Minnesota (155). Texas accounted for the largest number of farm supply and service cooperatives.

The 10 leading States in terms of number of cooperatives are shown in figure 1, which also shows the number of cooperatives by function in each State. For example, Minnesota had about the same number of marketing and farm supply cooperatives, while the majority in Texas were service cooperatives, mainly cotton gins. Wisconsin, the fifth leading State, had the largest percentage of farm supply cooperatives.

Grain and Farm Supply Branches

Many cooperatives operate branch facilities to better serve their members. Most are owned. Some are leased. A number are formerly independent cooperatives serving a local community. For economic or other

[1] Services include trucking, cotton ginning, storage, crop drying, artificial insemination, livestock shipping, and similar services affecting the form, quality, or location of farm products and supplies. They do not include credit, electric, telephone, or other such services not directly related to marketing or purchasing activities.

Figure 1— **Number of Cooperatives by Function, Leading States, 1998**

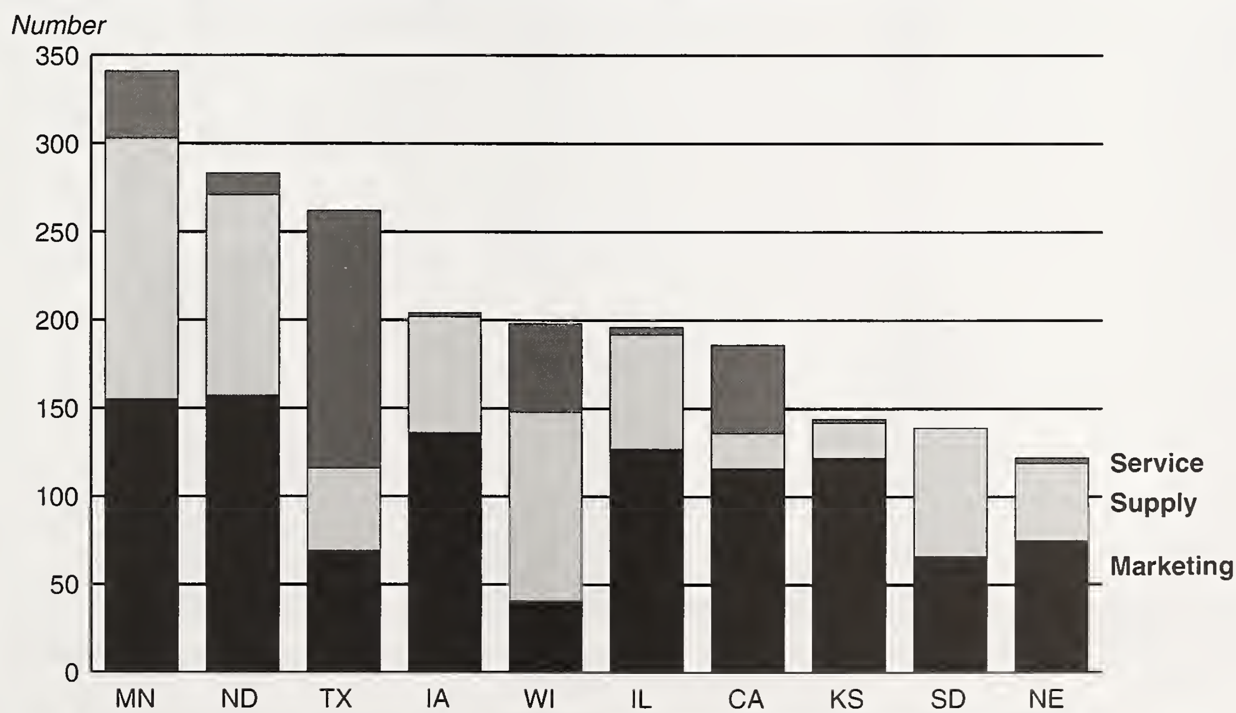


Table 2—**Number of cooperatives,[1] by major function and State, 1998[2]**

State	Major function: Marketing	Major function: Farm Supply and Service	Total
		Number	
Alabama	10	53	63
Arizona	5	5	10
Arkansas	12	45	57
California	116	70	186
Colorado	29	23	52
Florida	36	8	44
Georgia	9	8	17
Hawaii	22	7	29
Idaho	24	16	40
Illinois	127	69	196
Indiana	27	31	58
Iowa	136	68	204
Kansas	122	22	144
Kentucky	12	30	42
Louisiana	18	32	50
Maryland	3	17	20
Massachusetts	10	6	16
Michigan	38	30	68
Minnesota	155	186	341
Mississippi	19	59	78
Missouri	27	46	73
Montana	38	37	75
Nebraska	75	47	122
New Jersey	13	5	18
New Mexico	4	5	9
New York	82	17	99
North Carolina	20	9	29
North Dakota	157	126	283
Ohio	63	25	88
Oklahoma	45	50	95
Oregon	25	14	39
Pennsylvania	46	14	60
South Dakota	66	73	139
Tennessee	8	71	79
Texas	69	193	262
Utah	10	8	18
Virginia	22	41	63
Washington	55	35	90
West Virginia	14	13	27
Wisconsin	40	158	198
Wyoming	7	6	13
Other States[3]	47	10	57
United States	1,863	1,788	3,651

[1] Centralized and federated cooperatives and those with mixed organizational structures.
[2] Data covering operations of cooperatives for fiscal years that ended in 1998.
[3] Includes States with fewer than three cooperatives for any function. States with at least three cooperatives were: Connecticut, 5; Delaware, 3; South Carolina, 6.

reasons, many were acquired by or merged with other cooperatives and operated as branches from which to serve members and patrons at outlying locations.

In 1998, grain and farm supply cooperatives operated an estimated 5,617 branches—2,299 and 3,318, respectively. There was an increase of 49 branches for grain cooperatives and an increase of 135 branches for farm supply cooperatives. Both grain and farm supply cooperatives averaged 2.4 branches per cooperative in 1998. In 1997, grain and farm supply cooperatives operated an estimated 5,433 branches.

Figure 2 shows that several of the largest cooperatives (mainly regional) had more branches than many smaller (local) cooperatives combined. The 48 largest grain cooperatives—5 percent of all grain cooperatives—accounted for 31.1 percent of the total number of branches operated by grain cooperatives. And the 30 largest farm supply cooperatives had 1,672 branches, 50.4 percent of all farm supply branches.

Memberships

Memberships in marketing, farm supply, and related-service cooperatives totaled an estimated 3,352,577 in 1998, down 2.1 percent from 3,424,168 in 1997 (table 1).

By the cooperative's major business activity, 52.9 percent were memberships of farm supply cooperatives and 21.7 percent were of grain (figure 3). Dairy cooperative memberships were only 2.8 percent of cooperatives' total memberships, but accounted for 24.2 percent of cooperatives' net business volume in 1998, up from 21.9 percent in 1997.

Among marketing cooperatives, memberships decreased in 1998 for every type except sugar, nut, wool, poultry, and dry-edible bean cooperatives—all of which increased.

The largest proportions of memberships in farm supply cooperatives were among the smallest and largest cooperatives, as shown in figure 4. Memberships in marketing cooperatives were the greatest proportion of total memberships among those cooperatives with gross business volumes of $15 million to $250 million. When grouped by function and size, the largest number of memberships was in those cooperatives with a gross business volume of $15 million to $100 million.

Employees

Farmer cooperatives, like other businesses, employ full-time and, in many cases, part-time and seasonal employees to run their operations. The num-

Figure 2— **Branches of Grain and Farm Supply Cooperatives by Size, 1998**

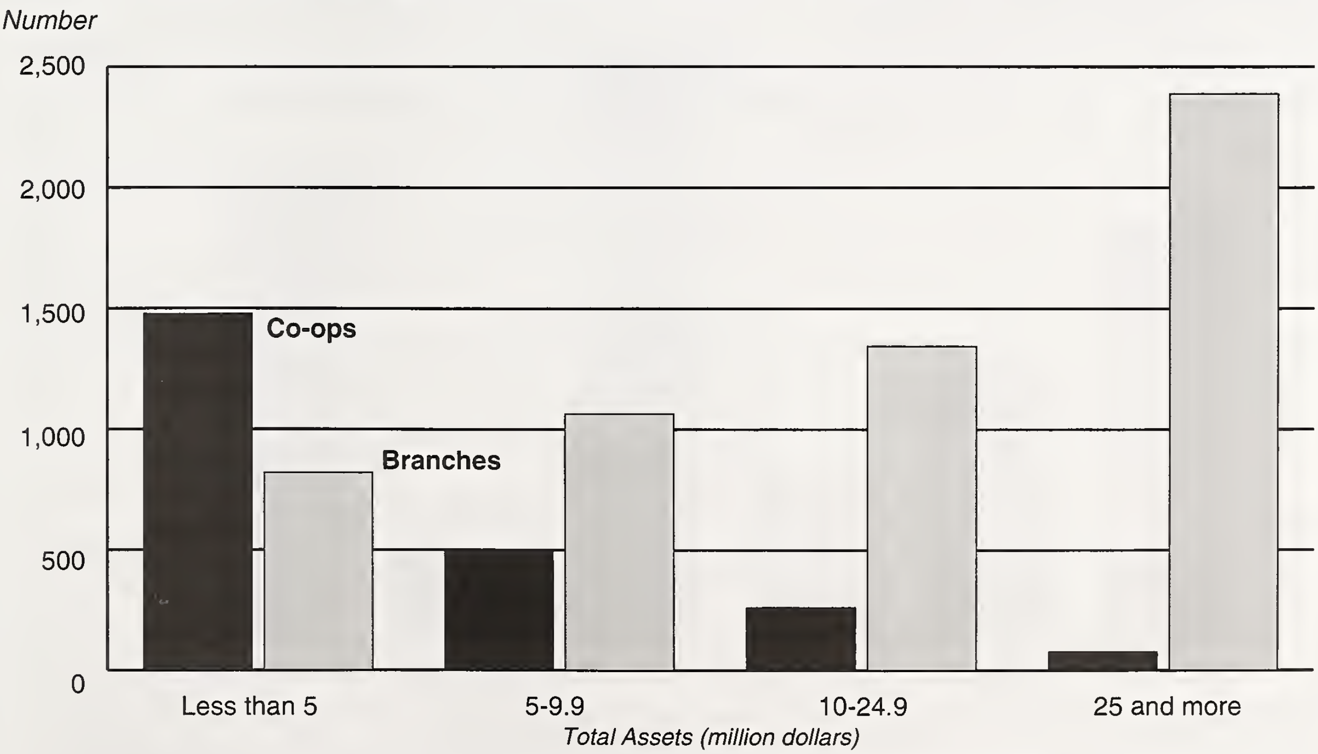
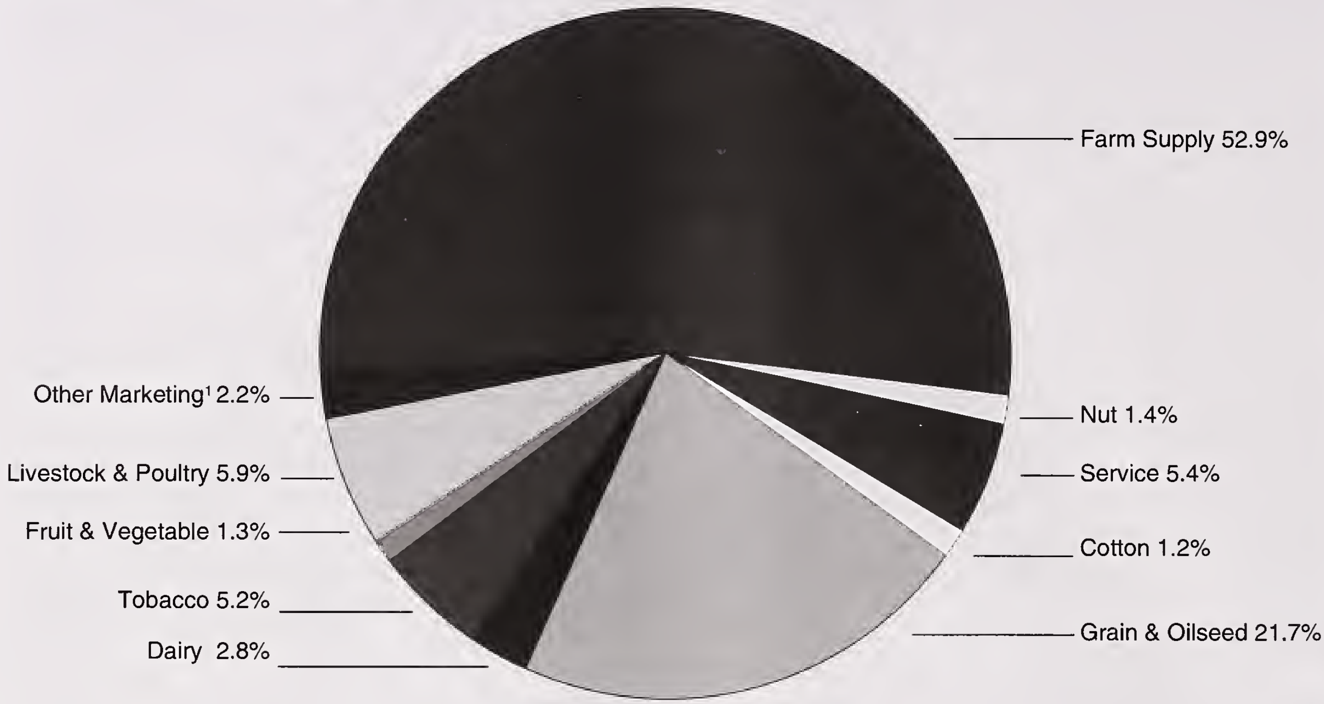


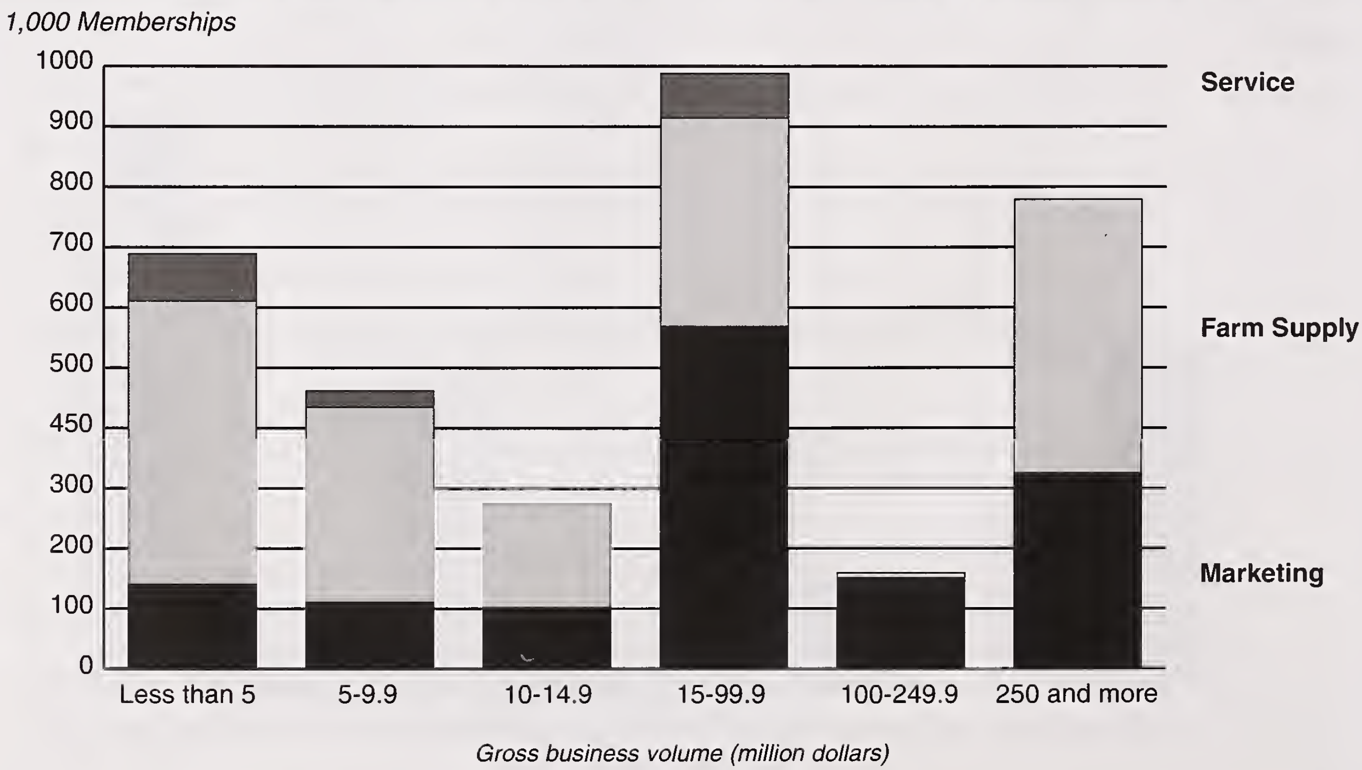
Figure 3— **Distribution of Memberships by Type of Cooperative, 1998**



Percent based on 3,352,577 total memberships.

[1] Includes dry bean and pea, wool and mohair, rice, sugar, fishery, and other miscellaneous marketing cooperatives.

Figure 4— **Cooperative Memberships Grouped by Function and Gross Business Volume, 1998**



ber and type of employees hired depends on a number of factors, such as size of operation, type of commodity handled, and involvement in value-added activities.

In 1998, farmer cooperatives employed an estimated 265,590 full-time and part-time and seasonal employees, down from 268,671 in 1997 (table 3). By type, marketing cooperatives had 185,135 employees (69.7 percent of total); farm supply cooperatives had 66,506 employees (25 percent); and related-service cooperatives had 13,949 employees (5.3 percent).

Among marketing cooperatives, those primarily handling fruits and vegetables had the most employees (58,055), followed by livestock and poultry (41,807) and grain and oilseed (32,411).

Figure 5 shows the number of full-time and part-time and seasonal employees by type of cooperative for 1998. Farm supply cooperatives used the most employees and rice cooperatives the fewest. Rice cooperatives had the smallest proportion of total part-time and seasonal employees. Related-service, followed by fruit and vegetable, cooperatives had the largest proportion of part-time and seasonal employees.

Full-time employees totaled 173,791 in 1998, up from 172,199 in 1997, or 0.9 percent. The number per association, however, was nearly 48, up from 45 in 1997, due both to fewer cooperatives and more full-time employees. The 1,863 marketing cooperatives employed 120,069 persons, up 1.3 percent from 1997. Livestock and poultry cooperatives, with 28,031, had the most full-time employees, while dairy cooperatives, with 27,056, ranked second. Together, they accounted for 45.9 percent of the full-time employees of marketing cooperatives.

The 1,347 farm supply cooperatives employed 48,171 persons on a full-time basis, up only 0.6 percent from the 47,870 reported for 1997. Full-time employees of the 441 related-service cooperatives totaled 5,551 in 1998, down from 5,850, or 5.1 percent.

Cooperatives used 91,799 part-time and seasonal employees in 1998, down 4,673, or 4.8 percent, from 1997. Cooperatives marketing fruits and vegetables hired an additional 2,796 part-time and seasonal employees.

In 1998, marketing cooperatives reported 65,066 part-time and seasonal employees, or 70.9 percent of the total. Number per cooperative averaged nearly 35. Fruit and vegetable and livestock and poultry cooperatives, with 48,097, accounted for 73.9 percent. Farm supply cooperatives had 18,355 part-time and seasonal employees, an average of nearly 14. Many of the mar-

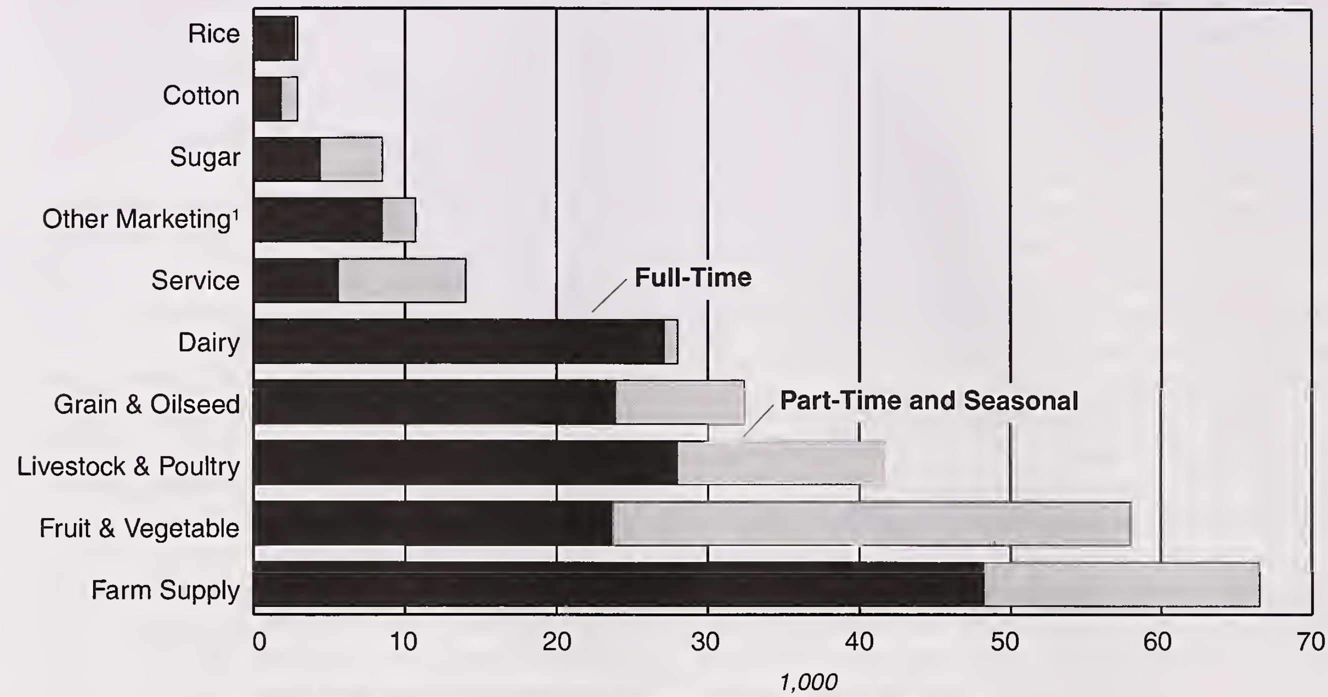
Table 3— **Full-time and part-time and seasonal employees of farmer cooperatives, by type of co-op, 1997-98**

Principal product(s) marketed or major function	Full-time employees		Part-time and seasonal [1]	
	1997	1998	1997	1998
	Number			
Products marketed:				
Cotton	1,995	1,844	643	1,050
Dairy	28,323	27,056	825	925
Fruits & vegetables	22,847	23,734	31,525	34,321
Grains and oilseeds excluding cottonseed	23,538	23,873	9,106	8,538
Livestock and poultry	26,399	28,031	17,477	13,776
Rice	2,713	2,655	226	231
Sugar	3,473	4,402	4,203	4,052
Other products[2]	9,191	8,474	2,826	2,173
Marketing	118,479	120,069	66,830	65,066
Farm supply	47,870	48,171	19,264	18,335
Service	5,850	5,551	10,377	8,398
Total	172,199	173,791	96,472	91,799

[1] Number of part-time employees was estimated for all cooperatives based on the relationship of part-time to full-time employees for the respondent cooperatives. Data for 1997 were revised. Totals may not add due to rounding.

[2] Includes dry edible beans and peas, nuts, tobacco, wool, fishery, and miscellaneous marketing cooperatives.

Figure 5— **Full-Time and Part-Time and Seasonal Employees, by Type of Cooperative, 1998**



[1] Includes dry bean and pea, nut, tobacco, wool and mohair, fishery, and other miscellaneous marketing cooperatives.

keting cooperatives needed more employees than did farm supply cooperatives. For example, livestock and poultry cooperatives averaged nearly 427 employees (figure 6).

Total Labor Expense

One of the largest expense items of any business is wages and benefits. Cooperatives are no exception. Hiring employees full-time or part-time and seasonally involves decisions on the number of employees and levels of salaries and wages. Other employee-related expenses include associated payroll taxes, insurance expenses, etc.

The average total labor expense per cooperative for those reporting in both 1997 and 1998 is shown in table 4. Average total labor expense (including director fees) is shown by type of cooperative and by asset group. This information can be used for comparing the average total labor expense of individual cooperatives of similar type and size.[2] For those where no size grouping is shown, labor expense may not be a good barometer because of the mix of sizes included in the group.

Overall, total labor expense for the cooperatives reporting total wages and benefits both years was up 3.1 percent. As shown in table 4, average total labor expense varied from a decrease from 1997 to 1998 of 16.3 percent for the small cotton gins (assets less than $500,000) to an increase of 15 percent for the related-service cooperatives. Also, average total labor expense increased as size of cooperative increased, especially for some of the largest cooperatives. In most cases, these larger cooperatives are involved in processing or manufacturing activities that are very labor intensive.

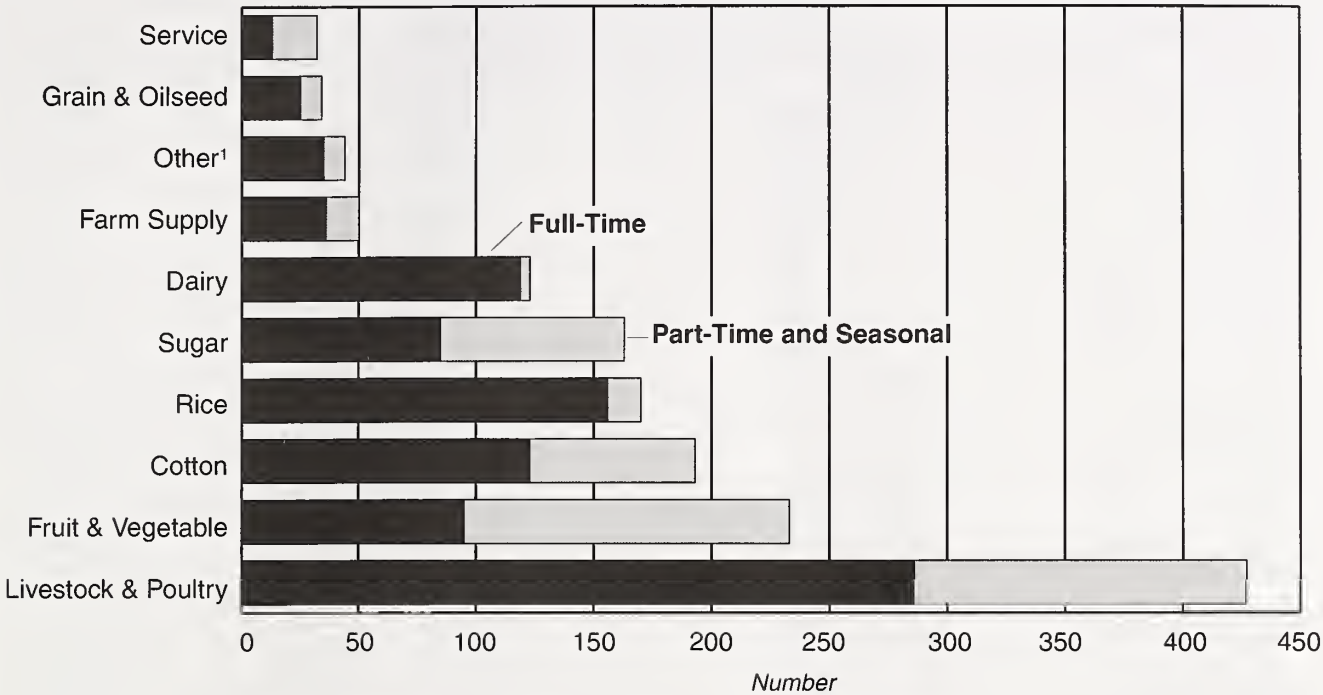
Total Sales Per Dollar of Labor Expense

The productivity of labor can be measured by examining the relationship between total sales and total labor expense. Table 5 shows total sales per dollar of total labor expense by type and size of cooperative, where applicable.

Total sales per dollar of total labor expense is relatively high for cooperatives involved in bargaining (dairy) or operating auctions (tobacco and livestock). In these situations, total labor requirements are low

[2] In a 1999 USDA survey of farmer cooperative statistics users, two-thirds of those responding thought the most useful information to add to USDA's statistics of farmer cooperatives would be information on wages and benefits.

Figure 6— **Average Number of Full-Time and Part-Time and Seasonal Employees, by Type of Cooperative, 1998**



[1] Includes dry bean and pea, nut, tobacco, wool and mohair, fishery, and other miscellaneous marketing cooperatives.

and sales are high. Surveyed cooperatives reported the value of the product for which they bargained or which they auctioned off.

Dairy cooperatives with assets of $500,000 to $1 million accounted for the highest sales per dollar of labor expense, $216.12 (table 5). Other service cooperatives with assets in the $1 million to $2.5 million range had the lowest sales per dollar of labor expense, $2.21.

Total sales per dollar of labor expense varies less as the size of cooperatives becomes larger for grain and oilseed and farm supply cooperatives than it does in differing sizes for dairy and fruit and vegetable cooperatives. Dairy cooperatives ranged from $23.91 to $216.12; fruit and vegetable cooperatives from $7.99 to $90.20; grain and oilseed cooperatives from $19.60 to $49.67; and farm supply cooperatives from $9.92 to $14.65.

Cooperative leaders may want to calculate their total sales per dollar of total labor expense and compare it with the appropriate figure in table 5 to see how well their cooperative is performing.

Business Size

Most farmer cooperatives, as measured by annual gross business volume, are relatively small and serve local areas. Several are actively seeking regional, national, and even international markets to increase business volume. These larger cooperatives account for much of cooperatives' business volume.

The increased size comes in part from mergers, consolidations, and acquisitions. Data used were not adjusted for changes in price levels, and some size changes resulted from inflation.

In 1998, 75.3 percent of all farmer cooperatives reported a business volume of less than $15 million. However, they accounted for only 9.9 percent of the total gross dollar volume (table 6 and figure 7). Only 1.7 percent of farmer cooperatives reported a business volume of at least $250 million, but they accounted for 59.2 percent of the total sales, down from 60.5 percent in 1997.

Business Volume

Total gross business volume of the 3,651 marketing, farm supply, and related-service cooperatives for 1998 was $121 billion (table 7), down 4.5 percent from $126.7 billion in 1997.

Total net business volume of farmer cooperatives in 1998 was $104.7 billion, $76.6 billion from farm products marketed, $24.6 billion from farm supply

Table 4—**Average total labor expense for cooperatives reporting, by selected type and size, 1997-98**

Type of co-op and asset group (Mil. Dol.)	Average total labor expense 1997	1998	Change
	$1,000		Percent
Dry bean and pea	2,557	2,925	14.4
Cotton	4,154	4,062	-2.2
Dairy	2,778	2,997	7.9
Less than 0.5	20	20	-.7
0.5 - .99	153	152	-.5
1.0 - 2.49	175	177	1.5
2.5 - 24.99	1,526	1,592	4.3
25.0 - 99.99	10,998	12,167	10.6
Fruit and vegetable	5,964	6,238	4.6
Less than 0.5	70	71	.6
0.5 - .99	311	312	.2
1.0 - 2.49	355	332	-6.3
2.5 - 24.99	2,146	2,150	.2
25.0 - 99.99	9,231	9,384	1.7
100.0 and more	53,972	57,391	6.3
Fruit and vegetable	5,964	6,238	4.6
Fresh only	1,348	1,394	3.4
Processed only	25,628	25,660	.1
Fresh and processed	12,943	14,404	11.3
Grain and oilseed	1,228	1,303	6.1
Less than 0.5	56	55	-2.0
0.5 - .99	117	122	3.9
1.0 - 2.49	219	226	3.1
2.5 - 24.99	999	1,050	5.1
25.0 - 99.99	3,446	3,795	10.1
100.0 and more	30,530	32,390	6.1
Livestock	1,207	1,122	-7.0
Nut	11,806	12,874	9.0
Poultry	54,513	49,808	-8.6
Rice	22,718	23,029	1.4
Sugar	22,349	22,183	-.7
Tobacco	151	139	-8.2
Fishery	5,598	5,813	3.8
Miscellaneous marketing	20,646	20,618	-.1
Farm supply	1,691	1,774	4.9
Less than 0.5	73	74	0.9
0.5 - .99	161	167	4.1
1.0 - 2.49	307	319	3.8
2.5 - 24.99	1,241	1,295	4.3
25.0 - 99.99	5,126	5,818	13.5
100.0 and more	65,893	68,882	4.5
Cotton gin	361	398	10.1
Less than 0.5	107	89	-16.3
0.5 - .99	208	216	3.7
1.0 - 2.49	282	317	12.2
2.5 - 24.99	643	716	11.3
Service	1,478	1,699	15.0

[1] Includes wages and salaries, payroll taxes, employee benefits, and director fees.

Table 5— **Total sales per dollar of total labor expense for cooperatives reporting, by selected type and size 1998**

Type of co-op and asset group	Sales per $1 labor expense[1]	Type of co-op and asset group	Sales per $1 labor expense[1]
Million Dollars	*Dollars*	*Million Dollars*	*Dollars*
Dry bean and pea	15.48	Livestock	91.97
Cotton	38.58	Nut	10.29
		Poultry	10.04
Dairy	31.29	Rice	12.97
Less than 0.5	139.59	Sugar	7.96
0.5 - .99	216.12	Tobacco	85.80
1.0 - 2.49	170.75	Fishery	7.16
2.5 - 24.99	61.47	Misc. Marketing	19.49
25.00 - 99.99	23.91		
100.0 and more	25.77	Farm supply	12.54
		Less than 0.5	13.05
Fruit and vegetable	9.52	0.5 - .99	9.92
Less than 0.5	90.20	1.0 - 2.49	11.14
0.5 - .99	29.29	2.5 - 24.99	10.62
1.0 - 2.49	58.84	25.00 - 99.99	12.89
2.5 - 24.99	12.87	100.0 and more	14.65
25.0 - 99.99	9.15		
100.0 and more	7.99	Cotton gin	7.96
		Less than 0.5	10.19
Fruit and vegetable	9.52	0.5 - .99	6.73
Fresh only	14.18	1.0 - 2.49	8.09
Processed only	8.78	2.5 - 24.99	8.02
Fresh and processed	7.03		
		Other service	2.24
Grain and oilseed	28.68	Less than 0.5	2.81
Less than 0.5	19.60	0.5 - .99	2.60
0.5 - .99	27.96	1.0 - 2.49	2.21
1.0 - 2.49	29.34		
2.5 - 24.99	24.04		
25.0 - 99.99	24.11		
100.0 and more	49.67		

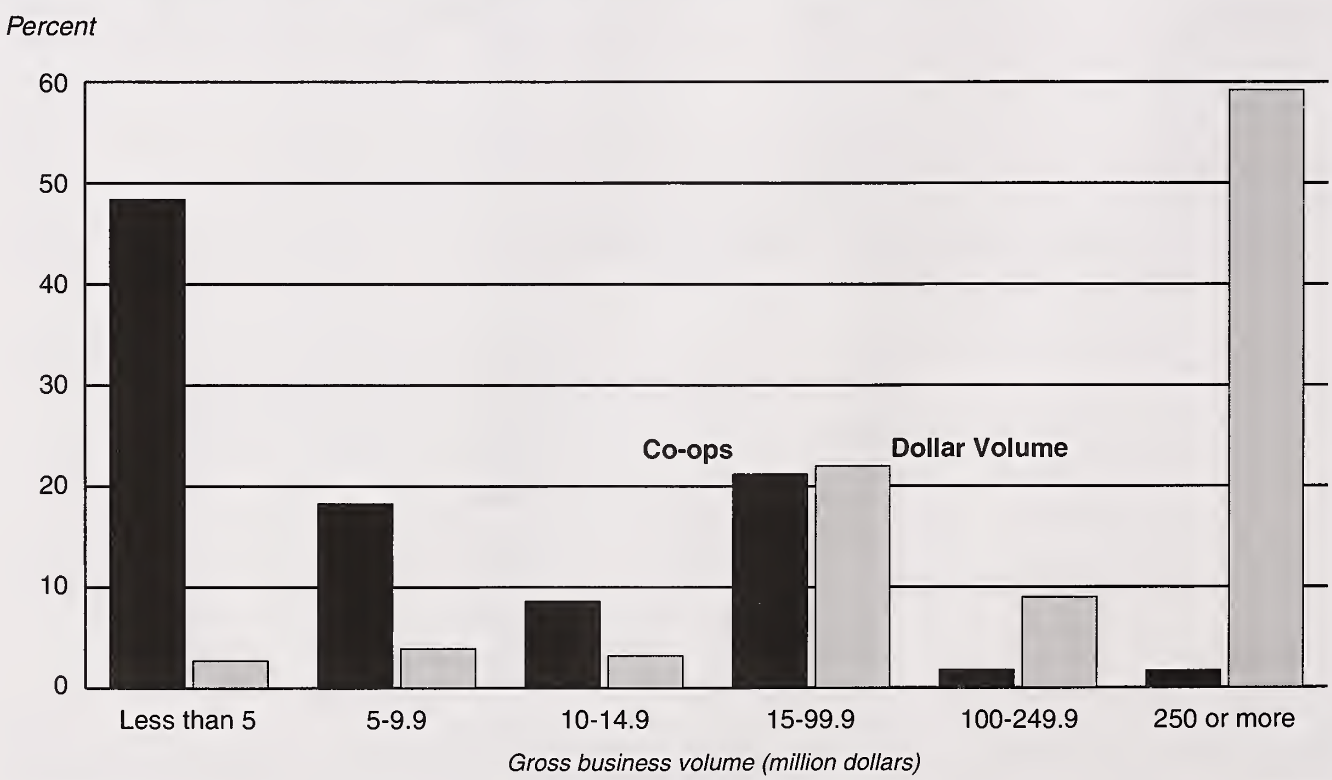
[1] Includes wages and salaries, payroll taxes, employee benefits, and director fees.

Table 6— **Farmer cooperatives and memberships, by gross business volume, 1998**[1]

Volume group (mil. dol.)	Cooperatives		Dollar volume		Memberships[3]	
	Number	Percent of total	Gross[2] (mil. dol.)	Percent of total	Number (1,000)	Percent of total
Less than 5.0	1,769	48.5	3,331	2.8	690	20.6
5 - 9.9	667	18.3	4,706	3.9	463	13.8
1 - 14.9	315	8.6	3,832	3.2	275	8.2
15 - 24.9	335	9.2	6,381	5.3	314	9.4
25 - 49.9	293	8.0	9,998	8.3	426	12.7
50 - 99.9	146	4.0	10,195	8.4	248	7.4
100 - 199.9	44	1.2	6,295	5.2	123	3.7
200 - 249.9	21	0.6	4,661	3.9	35	1.0
250 - 499.9	24	0.7	8,265	6.8	165	4.9
500 - 999.9	21	0.6	14,601	12.1	115	3.4
1,000 and more	16	0.4	48,696	40.3	498	14.9
Total[4]	3,651	100.0	120,961	100.0	3,353	100.0

[1] Business volume includes revenues from marketing plus the value of products bargained for or handled on a commission basis, supply sales, service receipts, and other income.
[2] Includes intercooperative business volume.
[3] Includes number of farmers, ranchers, and fishermen eligible to vote for directors. Does not include memberships held by other cooperatives, such as local cooperative memberships in regional cooperatives.
[4] Totals may not add due to rounding.

Figure 7— **Distribution of Farmer Cooperatives and Gross Business Volume, by Size, 1998**



sales, and nearly $3.5 billion from services performed and from other income sources. The total net figure (the difference between gross and net business volumes), which excludes intercooperative business, was down from $106.7 billion set in 1997. However, adjusting for price change, net business volume actually increased 5.4 percent[3], due to both lower commodity prices and lower prices paid for production items in 1998.

[3] Deflated 1997 cooperative business volume was $109.4 billion, up 3 percent from the actual $106.2 billion in 1996. The $109.4 billion was derived by deflating farm products marketed by indices of prices received for all farm products and farm supplies (inputs) and service income by the index of prices paid by farmers for production items.

Gross volume of farm products marketed by cooperatives decreased 1.7 percent, from $85.9 billion in 1997 to $84.5 billion in 1998, due mainly to a 12-percent decrease in grain and oilseed marketings. The net volume of farm products marketed was $76.6 billion, or 73.2 percent of the total net volume of all cooperatives, down 1.5 percent from $77.8 billion in 1997.

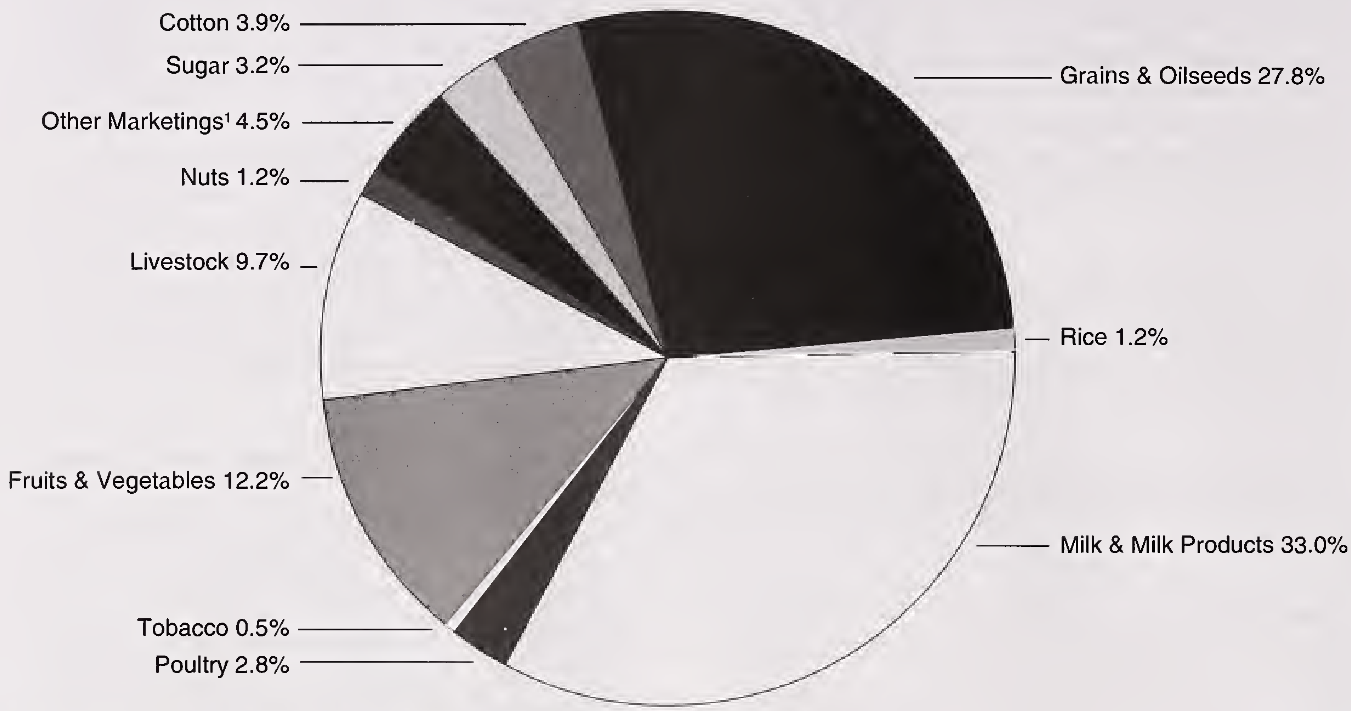
Figure 8 illustrates the leading products marketed by cooperatives based on net marketing business volume. Dairy (milk and milk products) led with 33 percent, followed by grains and oilseeds (excluding cottonseed) with 27.8 percent, and fruits and vegetables with 12.2 percent. The proportions of milk and

Table 7— **Cooperatives' gross and net business volumes by commodity, 1998** [1]

Commodity	Gross volume		Net volume	
	Million dollars	*Percent*	*Million dollars*	*Percent*
Products marketed:				
Beans and peas (dry edible)	187.3	0.2	187.2	0.2
Cotton	3,004.4	2.5	2,961.1	2.8
Dairy	27,807.6	23.0	25,329.4	24.2
Fruits and vegetables	9,903.8	8.2	9,391.2	9.0
Grains and oilseeds, excluding cottonseed	25,338.9	21.0	21,290.9	20.3
Livestock	7,575.0	6.3	7,418.1	7.1
Nuts	900.7	.7	900.7	.9
Poultry[3]	2,137.3	1.8	2,137.3	2.0
Rice	932.0	0.8	932.0	0.9
Sugar	2,681.1	2.2	2,444.7	2.3
Tobacco	348.5	0.3	348.5	0.3
Wool and mohair	11.3	(2)	6.8	(2)
Miscellaneous[4]	3,696.1	3.1	3,294.2	3.2
Total farm products	84,523.9	69.9	76,642.0	73.2
Supplies purchased:				
Crop protectants	4,078.6	3.4	3,165.7	3.0
Feed	7,186.4	5.9	5,405.3	5.2
Fertilizer	7,764.4	6.4	5,170.3	4.9
Petroleum	8,767.7	7.3	6,616.3	6.3
Seed	1,019.8	0.8	731.8	0.7
Other supplies[5]	4,147.0	3.4	3,462.0	3.3
Total farm supplies	32,963.8	27.3	24,551.4	23.5
Services provided: Trucking, cotton ginning,storage, grinding, locker plants, misc.[6]	3,473.2	2.9	3,473.2	3.3
Total business	120,960.9	100.0	104,666.6	100.0

[1] Gross includes and net excludes intercooperative business. Totals may not add due to rounding.
[2] Less than 0.05 percent.
[3] Includes eggs, turkeys, ratite, squab, and related products.
[4] Includes coffee, fish, forest products, hay, hops, seed marketed for growers, nursery stock, other farm products not separately classified, and sales of farm products not received directly from member-patrons. Also includes manufactured food products and resale items marketed by cooperatives.
[5] Includes building materials, containers and packaging supplies, farm machinery and equipment, meats and groceries, automotive supplies, hardware, chicks, and other supplies not separately classified.
[6] Charges for services related to marketing or purchasing not included in the volume reported for those activities, plus other income.

Figure 8— **Relative Importance of Farm Products Marketed by Cooperatives, 1998**



Percent based on a net marketing business volume of $76.6 billion.
[1] Includes dry beans and peas, wool and mohair, fish, and miscellaneous marketings.

milk products and fruits and vegetables were up compared with 1997, because of a significant drop in cooperatives' grain business volume in 1998.

Gross volume of all farm supplies handled by cooperatives was $33 billion, down 11.1 percent from $37.1 billion in 1997. Net farm supply volume of nearly $24.6 billion, down 2.5 percent from $25.2 billion, accounted for 23.5 percent of the total net business volume.

The leading farm production supplies handled by cooperatives in terms of net business volume were petroleum, 26.9 percent; feed, 22 percent; and fertilizer, 21.1 percent (figure 9). While sales of "other" supplies, seed, and crop protectants were up in 1998, feed, fertilizer, and petroleum were down.

Receipts for services provided by marketing, farm supply, and related-service cooperatives, plus other income, were down 4.8 percent to $3.5 billion. Service receipts and other income represented 3.3 percent of total net business volume.

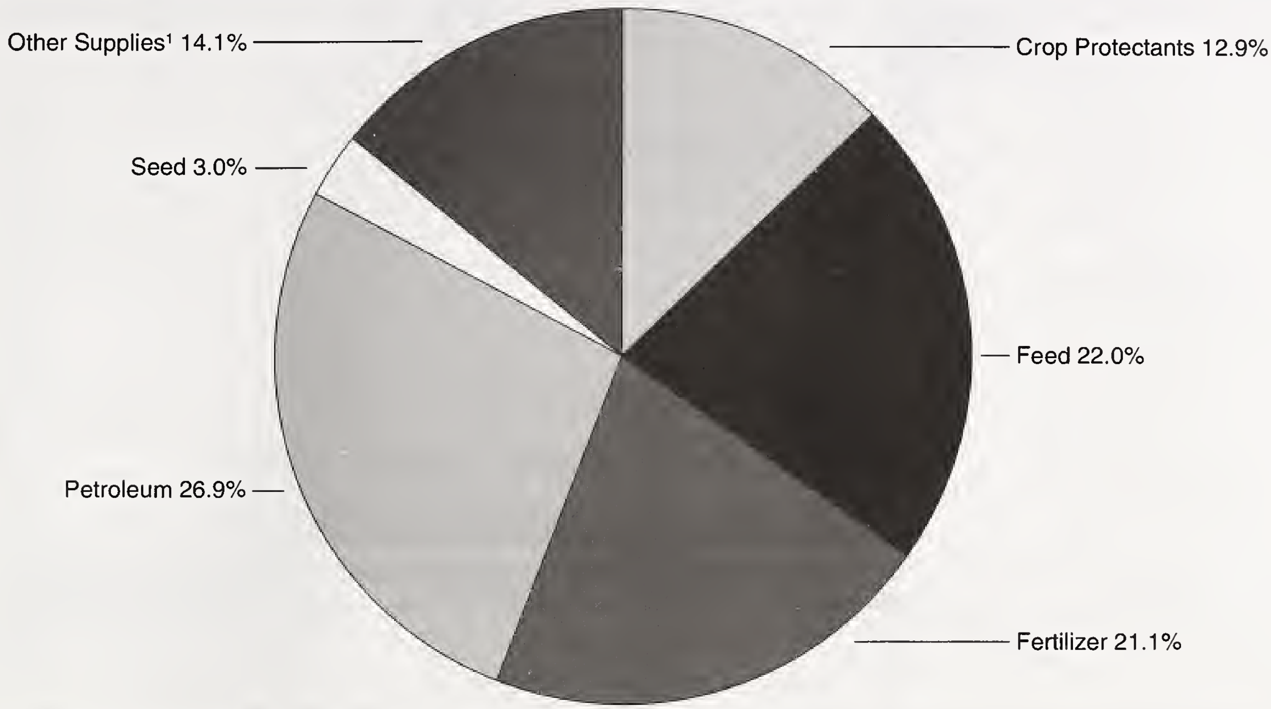
Net Income

Total net income (adjusted for losses and before taxes) for all cooperatives in 1998 was $1.7 billion, including intercooperative dividends and refunds (table 8). Cooperatives operating strictly on a pooling basis were excluded. Net income was down 24.7 percent from the $2.3 billion in 1997. Patronage refunds received from other cooperatives, including CoBank and the St. Paul Bank for Cooperatives, totaled $573 million, down 24.3 percent from $757.1 million in 1997.

Marketing cooperatives' total net income of $1,017.5 million was down 22.5 percent from the $1,313.3 million generated in 1997. Losses by poultry, fruit and vegetable, sugar, and miscellaneous marketing cooperatives were the major factor. Grain and oilseed (43.4 percent) and dairy (43.9 percent) cooperatives together accounted for most (87.3 percent) of marketing cooperatives' net income and a majority (51 percent) of total net income (figure 10).

Total net income of farm supply cooperatives was $578.8 million in 1998, down 30.6 percent from $834.6 million in 1997. And they accounted for 33.2 percent of cooperatives' total net income in 1998, compared with 36.1 percent in 1997. Income from their own operations, excluding patronage refunds from other cooperatives, CoBank, and the St. Paul Bank for Cooperatives, was $301.6 million, down 37.3 percent from $480.8 million in 1997.

Figure 9— **Relative Importance of Farm Supplies Handled by Cooperatives, 1998**



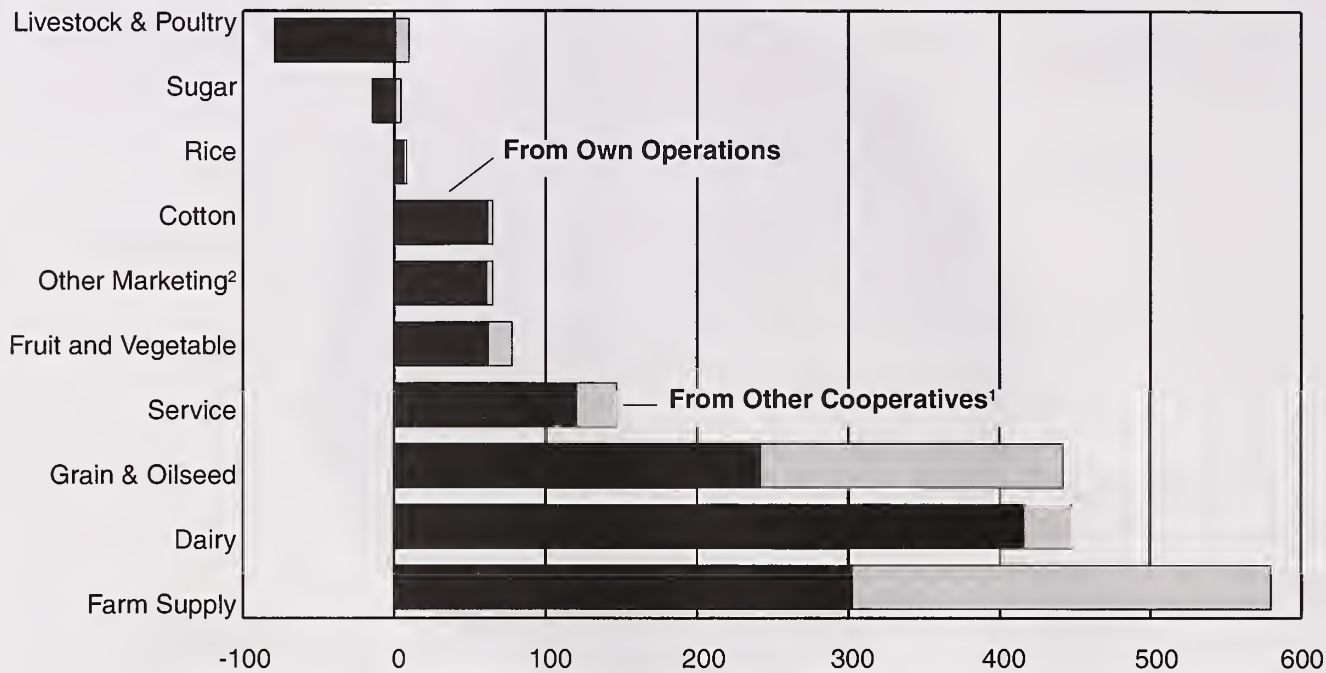
Percent based on a net farm supply business volume of $24.6 billion.
[1] Includes building materials; tires, batteries, and accessories; equipment; animal health products; pet food; semen; hardware; food; clothing; etc.

Table 8— **Farmer cooperatives' net income 1998**[1]

Principal product(s) marketed and major function	Co-ops[1]	Total net income	Income from own operations	Income from other co-ops[2]
	Number	*Million dollars*		
Products marketed:				
Cotton	15	64.0	60.7	3.4
Dairy	228	447.2	414.9	32.3
Fruits & vegetables	249	76.9	61.3	15.6
Grains and oilseeds excluding cottonseed	964	441.4	241.3	200.1
Livestock and poultry	98	-71.2	-80.0	8.8
Rice	17	7.3	5.4	1.9
Sugar	52	-12.1	-15.5	3.4
Other products[3]	240	64.0	60.2	3.9
Total marketing	1,863	1,017.5	748.2	269.3
Total farm supply	1,347	578.8	301.6	277.2
Total related-service	441	146.0	119.5	26.5
Combined total	3,651	1,742.3	1,169.3	573.0

[1] Includes number of cooperatives operating on a strictly pooling basis, but not their pool proceeds.
[2] Includes patronage refunds from CoBank and the St. Paul Bank for Cooperatives.
[3] Includes dry edible beans and peas, nuts, tobacco, wool, and miscellaneous products.

Figure 10— **Total Net Income or Loss by Cooperative Type, 1998**



[1] Includes dividends and patronage refunds from other farmer cooperatives, CoBank, and the St. Paul Bank for Cooperatives.

[2] Includes dry bean and pea, nut, tobacco, wool and mohair, fishery, and other miscellaneous marketing cooperatives.

Farmer cooperatives' net income from own operations in 1998 totaled $1,169.3 million, down 24.9 percent from $1,557.2 million. Nearly 32.9 percent, or $573 million, of total net income ($1,742.3 million) was generated by other cooperatives, CoBank, and the St. Paul Bank for Cooperatives, down 24.3 percent from $757.1 in 1997. However, the proportion generated by other cooperatives in 1997 was about the same, 32.7 percent. Marketing cooperatives' net income from other cooperatives, including CoBank and the St. Paul Bank for Cooperatives, totaled $269.3 million and accounted for 26.5 percent of their total, down from $368.8 million and 28.1 percent in 1997. Grain cooperatives' net income from other cooperatives totaled $200.1 million, or 45.3 percent of their total, down from $233.6 million, or 53.5 percent in 1997.

Income before adjusting for losses was $2,122.2 million. Losses by an estimated 601 cooperatives totaled $379.9 million in 1998, up from $162.8 million in 1997. Number of cooperatives with losses was up significantly, from 506 to 601. The increased losses came from marketing and related-service cooperatives.

Marketing cooperative losses totaled $338 million in 1998, compared to $119.5 million in 1997. Related-service cooperative losses totaled $20.6 million, compared with $4.8 million. Losses among farm supply cooperatives were down, $21.3 million versus $38.5 million in 1997.

Balance Sheet

Combined assets for all farmer cooperatives totaled nearly $46.6 billion in 1998, up 5.8 percent from $44 billion in 1997 (table 9). Assets of cooperatives, excluding intercooperative investments, were up 6.2 percent to $41.9 billion, compared with $39.4 billion in 1997.

Total liabilities were $26.6 billion, up 4.5 percent from $25.5 billion in 1997. Net worth, or member and patron equity, was $20 billion, up 7.6 percent from $18.5 billion in 1997. The proportion of total assets financed by member and patron equity increased to 42.9 percent from 42.1 percent.

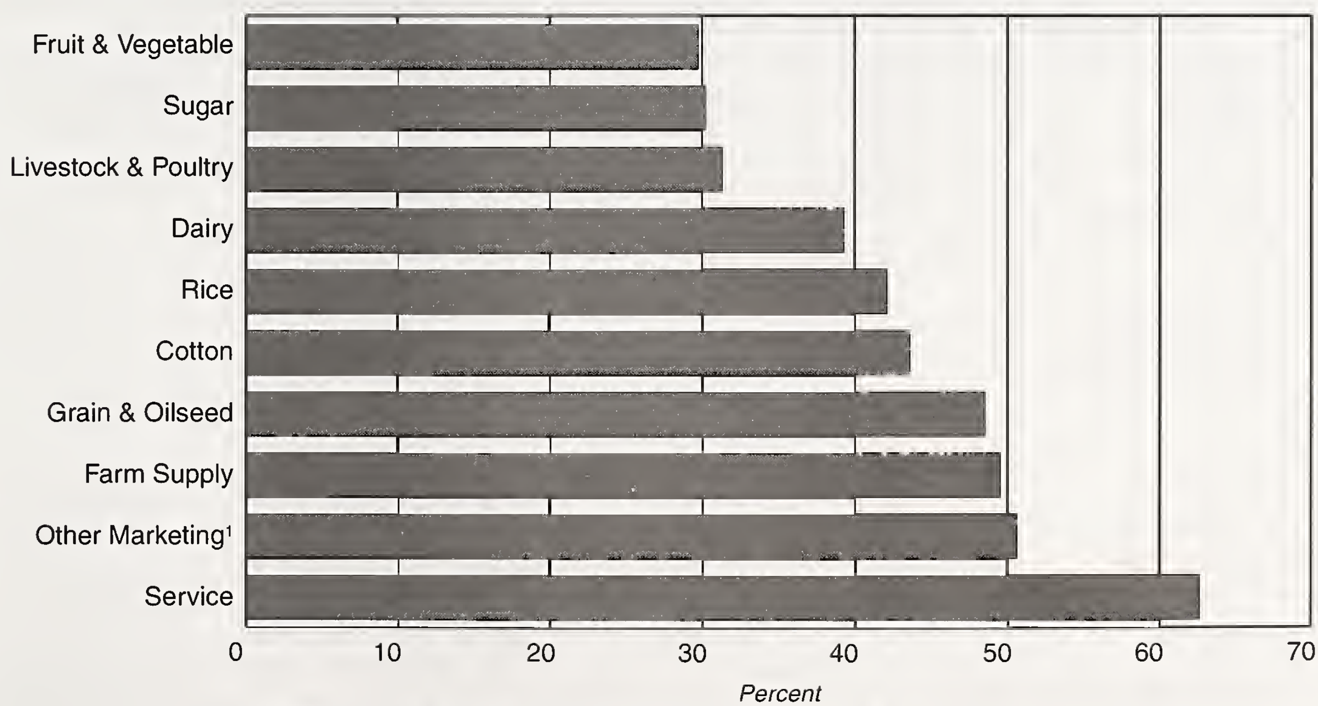
Net worth, or member and patron equity, for all marketing cooperatives totaled $12.7 billion, up 7.5 percent from 1997. Marketing cooperatives accounted for 63.4 percent of farmer cooperatives' combined net worth, down slightly from 63.5 percent in 1997. The net worth figure for farm supply cooperatives was 33.9 percent of the total, up from 33.5 percent. For marketing cooperatives, the highest percentage of total assets represented by net worth shown in figure 11 (50.6 per-

Table 9— **Combined balance sheet data for farmer cooperatives, 1998**[1]

Principal product(s) marketed and major function	Co-ops	Total assets	Total liabilities	Net worth
	Number		*Million dollars*	
Products marketed:				
Cotton	15	831.2	468.7	362.5
Dairy	228	7,457.2	4,525.2	2,932.0
Fruits & vegetables	249	5,511.8	3,876.3	1,635.5
Grains and oilseeds, excluding cottonseed	964	8,035.2	4,136.7	3,898.6
Livestock and poultry	98	4,503.2	3,093.6	1,409.6
Rice	17	588.9	341.1	247.8
Sugar	52	2,070.7	1,444.4	626.4
Other products[2]	240	3,040.4	1,502.4	1,538.0
Total marketing	1,863	32,038.6	19,388.3	12,650.3
Total farm supply	1,347	13,657.9	6,894.3	6,763.6
Total related-service	441	863.4	323.3	540.1
Combined total	3,651	46,559.9	26,605.9	19,954.0

[1] Totals may not add due to rounding.
[2] Includes dry edible beans and peas, nuts, tobacco, wool, and miscellaneous products.

Figure 11— **Percentage of Cooperatives' Assets Financed by Net Worth, by Cooperative Type, 1998**



[1] Includes dry bean and pea, nut, tobacco, wool and mohair, fishery, and other miscellaneous marketing cooperatives.

cent) was for those marketing primarily "other" products. The lowest, 29.7 percent, was for cooperatives marketing primarily fruits and vegetables. Marketing and farm supply cooperatives had 39.5 percent and 49.5 percent, respectively, of their assets financed by net worth. Both were up from 1997.

Of the $46.6 billion in total assets, marketing cooperatives accounted for $32 billion, up 5.9 percent from 1997. Cooperatives primarily handling grains and oilseeds (excluding cottonseed) had total assets of $8 billion in 1998, slightly up from nearly $8 billion in 1997. Among the marketing cooperatives, those with primarily grain also maintained the largest proportion of their assets as investments in other cooperatives in both 1998 (15.5 percent) and 1997 (14.6 percent). Dairy cooperatives had 9.6 percent of their assets invested in other cooperatives (table 10).

Assets of marketing cooperatives, excluding investments in other cooperatives, CoBank and the St. Paul Bank for Cooperatives, were $29.5 billion, up 5.9 percent from $27.8 billion in 1997.

Farm supply cooperatives had total assets of $13.7 billion, compared with $12.9 billion in 1997, up 6.1 percent. Excluding intercooperative investments, assets were up 7.6 percent to $11.7 billion from 10.8 billion in 1997.

Selected Financial Ratios

Financial ratios express relationships between items in the financial and income statements of a business operation and help in analyzing a cooperative's economic and financial situation.

Financial ratios can indicate problem areas. While they can't solve problems, they can serve as guidelines for planning and aid in formulating actions. Care must be taken in their use because both items used to calculate a ratio are subject to considerable variation. Ratio interpretation is largely subjective.

Five financial ratios were selected to give some indication of cooperative performance or financial condition—return on assets, net worth-to-assets, return on sales, total sales-to-assets, and the current ratio.

The return on assets and return on sales ratios indicate profitability. The net worth-to-assets ratio shows a cooperative's ability to meet long-term financial obligations. The total sales-to-asset ratio (asset turnover ratio) indicates how efficiently a cooperative is using its assets. The current ratio (current assets divided by current liabilities) best measures a cooperative's ability to meet short-run obligations.

Table 11 lists the values of these ratios for the cooperatives reporting to RBS. Extreme high and low values were excluded so those used would be more

Table 10— **Combined assets for farmer cooperatives, 1998[1]**

Principal product(s) marketed and major function	Co-ops[2]	Assets of own operations	Investments in other co–ops[3]	Total assets	Investments in other co–ops as percent of total
	Number		*Million dollars*		*Percent*
Products marketed:					
Cotton	15	803.7	27.5	831.2	3.3
Dairy	228	6,744.3	712.9	7,457.2	9.6
Fruits & vegetables	249	5,329.2	182.5	5,511.8	3.3
Grains and oilseeds excluding cottonseed	964	6,787.9	1,247.3	8,035.2	15.5
Livestock and poultry	98	4,205.1	298.1	4,503.2	6.6
Rice	17	573.4	15.5	588.9	2.6
Sugar	52	2,029.1	41.7	2,070.7	2.0
Other products[4]	240	2,978.2	62.2	3,040.4	2.0
Total farm products	1,863	29,451.0	2,587.6	32,038.6	8.1
Total farm supplies	1,347	11,657.9	2,000.0	13,657.9	14.6
Total selected services	441	774.7	88.7	863.4	10.3
Combined total	3,651	41,883.6	4,676.3	46,559.9	10.0

[1] Totals may not add due to rounding.

[2] Many cooperatives have multiproduct and multifunctional operations. Most are classified according to predominant commodity or function, as indicated by business volume.

[3] Also includes investments in CoBank and the St. Paul Bank for Cooperatives.

[4] Includes dry edible beans and peas, nuts, tobacco, wool, and miscellaneous products.

Table 11— **Selected financial ratios for cooperatives, 1998**[1]

Type of co–op and asset group (mil. dol.)	Return on assets[2]	Net worth to assets[3]	Return on sales[4]	Sales to assets [4]	Current ratio[5]
	Percent			*Number*	
Cotton	7.7	43.3	2.1	3.7	1.4
Less than 25	8.4	35.4	2.7	3.1	1.4
$25 - 99.99	1.5	48.3	0.3	5.2	1.6
$100.0 and more	9.6	42.9	2.9	3.3	1.3
Dairy	5.9	39.5	1.6	3.7	1.3
Less than $0.5[6]	2.8	60.9	0.5	5.3	1.9
$0.5 - $.99	7.1	57.3	1.4	4.9	1.9
$1.0 - $2.49	4.8	55.2	0.9	5.2	1.5
$2.5 - $24.99	7.0	33.8	1.1	6.4	1.2
$25.0 - $99.99	9.0	38.0	1.7	5.3	1.2
$100.0 and more	5.4	39.9	1.6	3.4	1.3
Fruit and vegetable	2.6	29.0	1.4	1.9	1.3
Less than $0.5	8.1	53.7	0.5	15.8	1.7
$0.5 - $.99	6.8	67.9	1.9	3.5	2.3
$1.0 - $2.49	6.8	58.3	1.7	4.0	1.6
$2.5 - $24.99	10.7	42.5	2.8	3.8	1.2
$25.0 - $99.99	1.4	27.4	0.8	1.7	1.1
$100.0 and more	2.6	29.0	1.4	1.9	1.3
Grain and oilseed[7]	5.6	48.6	1.7	3.3	1.3
Less than $0.5	-0.3	87.7	-0.1	4.5	5.1
$0.5 - $.99	5.7	78.0	1.4	4.0	3.2
$1.0 - $2.49	4.5	66.8	1.2	3.7	1.9
$2.5 - $24.99	5.7	52.7	1.9	3.0	1.3
$25.0 - $99.99	5.2	43.3	2.0	2.6	1.2
$100.0 and more	6.0	40.3	1.2	5.0	1.1
Livestock	1.8	32.7	0.5	3.4	1.3
Less than $2.49	2.2	76.5	0.1	16.1	2.7
$2.5 - $24.99	1.4	26.7	0.1	9.8	1.2
$25.0 and more	1.8	32.8	0.6	3.2	1.3
Nut	1.7	38.4	1.0	1.8	1.7
Poultry	-11.6	22.8	-3.9	3.0	1.3
Rice	1.3	44.3	0.6	2.3	1.4
Sugar	-0.7	36.8	-0.7	1.0	1.2
Tobacco	1.4	25.8	1.6	0.8	1.1
Misc. marketing	1.6	52.9	0.7	2.3	1.5
Fishery	-0.2	48.8	-0.1	2.3	1.3
Farm supply	4.0	47.8	2.4	1.7	1.5
Less than $0.5	1.2	73.2	0.3	3.8	2.7
$0.5 - $.99	4.0	75.0	1.9	2.1	2.9
$1.0 - $2.49	5.2	71.3	2.5	2.1	2.3
$2.5 - $24.99	6.1	59.9	3.0	2.0	1.5
$25.0 - $99.99	5.6	45.2	2.6	2.1	1.3
$100.0 - $499.99	3.6	43.8	1.5	2.4	1.4
$500.0 and more	3.0	42.9	2.4	1.3	1.4
Artificial insemination	8.5	76.9	7.2	1.2	3.0

Continued

Table 11— **Selected financial ratios for cooperatives, 1998**[1] (continued)

Type of co–op and asset group (mil. dol.)	Return on assets[2]	Net worth to assets[3]	Return on sales[4]	Sales to assets[4]	Current ratio[5]
	Percent			Number	
Cotton gins	20.1	59.7	14.4	1.4	1.3
Less than $0.5	5.1	30.8	1.3	4.0	2.0
$0.5 - $.99	11.9	65.0	6.9	1.7	1.6
$1.0 - $2.49	16.7	66.9	10.4	1.6	1.7
$2.5 and more	22.7	56.2	18.2	1.2	1.2
Other service[8]	14.6	57.6	17.1	0.9	1.5
Less than $0.5	9.7	91.9	7.2	1.4	6.5
$0.5 - $.99	6.8	58.1	6.0	1.1	1.6
$1.0 - $2.49	13.3	55.9	10.5	1.3	1.7
$2.5 and more	16.1	55.6	24.9	.6	1.2

[1] Based on cooperatives reporting. Excludes strictly pooling cooperatives. Ratios were calculated by summing the individual items and dividing. The same cooperatives were included in each group to calculate all five ratios. Outliers (extreme values) not representative of the group were excluded.
[2] Includes net income before any income taxes are deducted. Calculated by dividing net income by total assets. Usually referred to as the return on assets.
[3] Net worth, or member equity, is the book value of the assets owned by members. The ratio was calculated by dividing total net worth by total assets.
[4] Total sales includes service receipts, other income, and patronage refunds received from other cooperatives, CoBank, and the St. Paul Bank for Cooperatives. The return on sales was found by dividing net income by total sales.
[5] The current ratio was derived by dividing current assets by current liabilities. These data were taken from annual reports where provided.
[6] Includes bargaining cooperatives.
[7] Excludes cottonseed.
[8] Includes cooperatives providing primarily services related to storage, transportation, livestock shipping, and rice drying.

representative of the cooperatives reporting. Ratios are also shown by selected asset category for those cooperatives where sufficient information was available. These ratios offer cooperative leaders a general barometer to use in comparing their operations with others of the same type (and/or size).

The return on assets (net income/assets) varied considerably. It was negative for poultry, sugar, fishery, and small grain cooperatives. The ratio (20.1) was highest for cotton ginning cooperatives. By size group, fruit and vegetable and farm supply cooperatives with assets in the range of $2.5 million to $24.9 million had the largest return on assets. For dairy, it was highest for those cooperatives with assets of $25 million to $99.9 million. Among grain cooperatives, the largest return came from the largest cooperatives.

The net worth-to-assets ratio ranged from a low of 22.8 percent for poultry cooperatives to a high of 91.9 percent for the smallest "other" service cooperatives. Generally, as cooperatives become larger and/or do more processing, a declining percentage of their assets is financed by members, resulting in a lower net worth-to-assets ratio.

The return on sales (net income/total sales) ranged from a negative 3.9 percent for poultry cooperatives to a high of 24.9 percent for the largest "other" service cooperatives. Few cooperatives generated a return on sales above 3 percent (only 10 of the 55 groups shown in table 11).

The sales-to-assets ratio ranged from a high of 16.1 for the small livestock cooperatives to a low of 0.6 for the largest "other" service cooperatives. Among fruit and vegetable, grain, livestock, and cotton ginning cooperatives, the ratio tended to decrease as size of cooperative increased. Generally, this reflects the large investment in processing or manufacturing equipment typical of the larger dairy and fruit and vegetable cooperatives. The sales-to-assets ratios for farm supply cooperatives did not vary much with size of the cooperative. Most of these cooperatives are less involved in manufacturing or processing than the larger marketing cooperatives.

The generally high sales-to-assets ratios for the smaller cooperatives, as well as for some types of cooperatives, is due to bargaining activity or other marketing functions not requiring major investments in plant and equipment.

The current ratio (current assets/current liabilities) ranged from a low of 1.1 for fruit and vegetable cooperatives with assets of $25 million to $99.9 million, the largest grain cooperatives, and tobacco cooperatives to 5.1 for the smallest grain and oilseed cooperatives. Smaller cooperatives' current liabilities are generally low, but become larger in relation to current assets as business grows.

Table 12— **Number of farmer cooperatives, 1989–98**

Period [1]	Marketing	Farm supply	Service	Total
		Number		
1989	2,550	1,803	446	4,799
1990	2,519	1,717	427	4,663
1991	2,384	1,689	421	4,494
1992	2,218	1,618	479	4,315
1993	2,214	1,547	483	4,244
1994	2,173	1,496	505	4,174
1995	2,074	1,458	474	4,006
1996	2,012	1,403	469	3,884
1997	1,941	1,386	464	3,791
1998	1,863	1,347	441	3,651

[1] For years before 1989, see *Cooperative Historical Statistics*, CIR 1, Section 26, USDA, Revised April 1998. Cotton ginning cooperatives, livestock shipping associations, and rice drying cooperatives were reclassified from marketing to service in 1989, 1992, and 1993, respectively.

III—Cooperative Trends, 1989-98

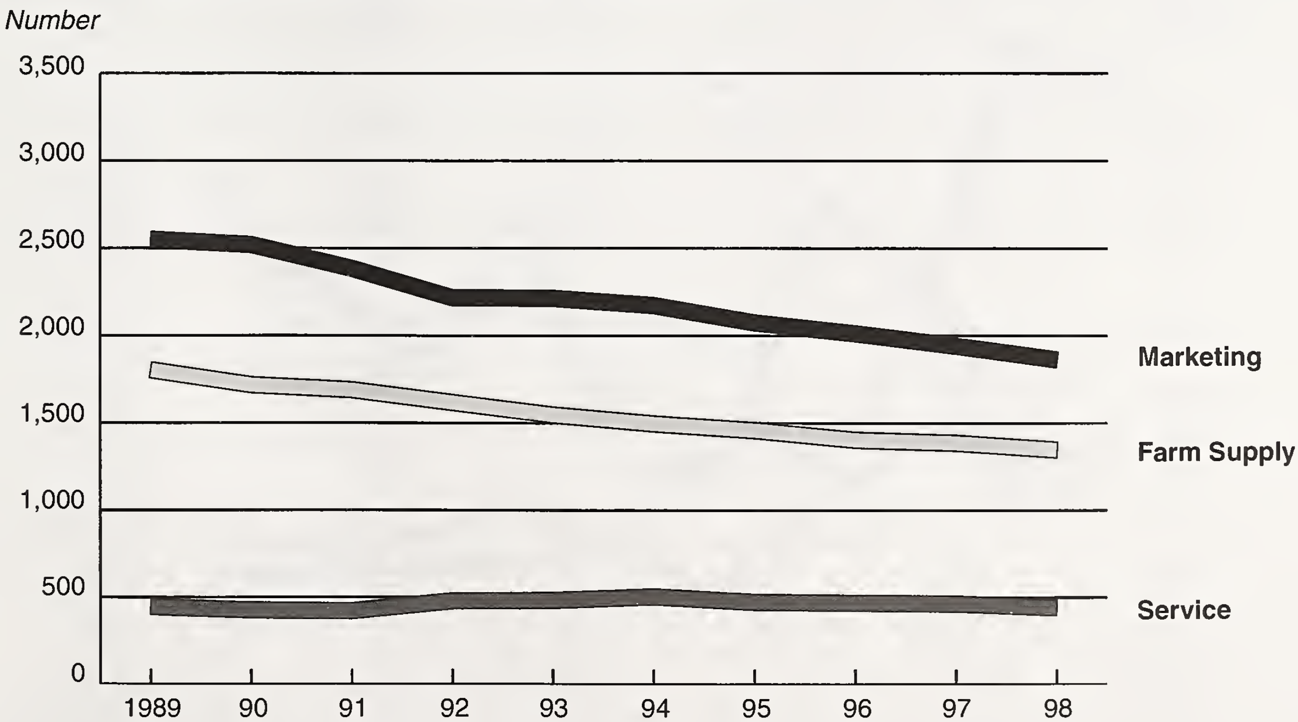
Although the number of cooperatives decreased during the past decade, their business volume increased until recent years. Cooperatives continue to adjust to the changing economic environment through dissolution, merger, consolidation, acquisition, and the sale of assets. In some cases, farmers organized new-generation cooperatives to become involved in value-added activities. In 1989, the net business volume of 4,799 cooperatives totaled $72.1 billion. A decade later, that volume generated by 3,651 cooperatives was $104.7 billion.

Number of Cooperatives

The total number of marketing, farm supply, and related-service cooperatives declined from 4,799 in 1989 to 3,651 in 1998 (table 12 and figure 12). Marketing cooperatives declined from 2,550 to 1,863 and farm supply cooperatives from 1,803 to 1,347. Number of service cooperatives decreased from 446 to 441.

From 1989 through 1998, 1,796 cooperatives (about 180 per year), were removed from RBS' list of farmer cooperatives. Of those, 40.1 percent were dis-

Figure 12— **Farmer Cooperatives in the United States, 1989-98**



solved, 33.5 percent were merged or consolidated, 15 percent were acquired by other cooperatives or investor-owned firms, and the remaining 11.4 percent were removed for other reasons (figure 13).

Even while cooperatives were disappearing from RBS' list, new ones or ones not previously on the list were added. From 1989 through 1998, 524 cooperatives (about 52 per year) were added. During 1998, 55 cooperatives were added to RBS' list of cooperatives, the largest increase since 1993 when 65 were added.

Grain and Farm Supply Branches

In 1992, 2,861 grain and farm supply cooperatives had an estimated 4,644 branches, 1,867 owned by grain cooperatives and 2,777 by farm supply cooperatives. In 1998, grain and farm supply cooperative numbers dropped to 2,311, but branches had increased to 5,617 (table 13 and figure 14).

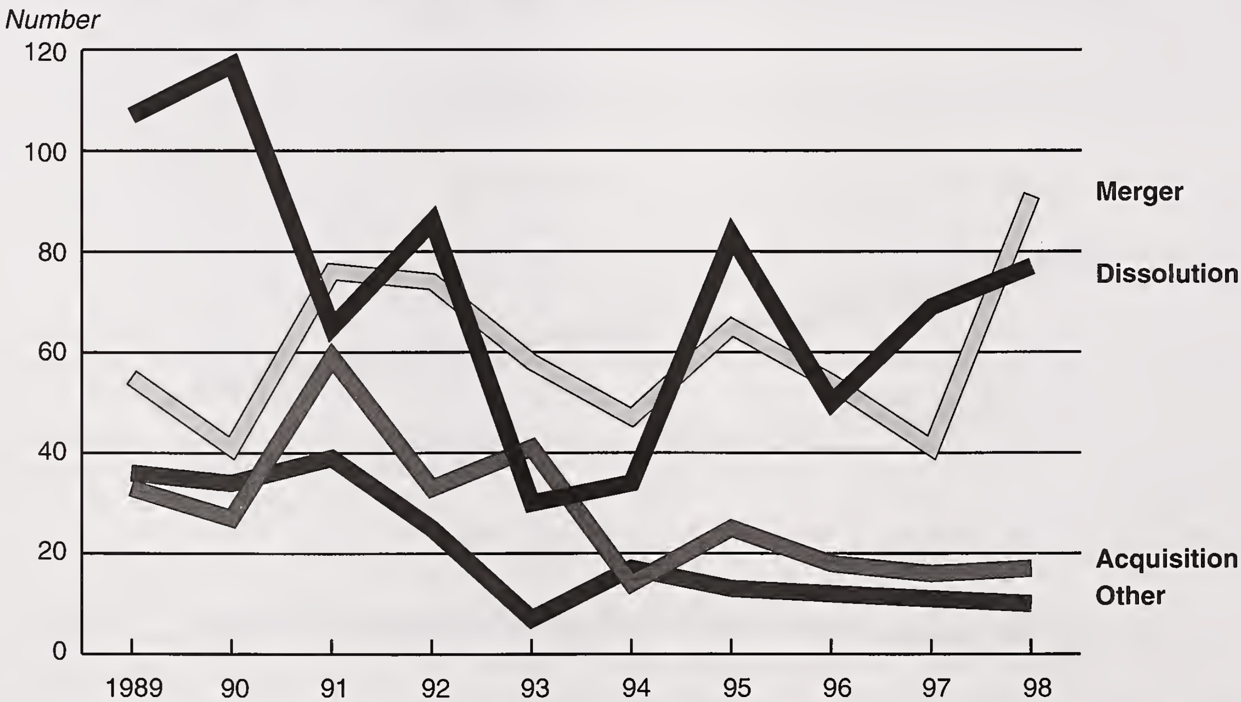
Average number of branches per cooperative was 1.6 in 1992 and 2.4 in 1998. Larger cooperatives accounted for the most branches, particularly among the farm supply cooperatives. For cooperatives with assets of $25 million or more in 1998, 30 farm supply cooperatives had an estimated 1,672 branches and 48 grain cooperatives had 716 branches.

Memberships

Memberships in farmer cooperatives, 4.1 million in 1989, dropped to 3.4 million in 1998 (table 14 and figure 15). The long-term decline, in part, reflects the decreasing number of farms and farmers in the United States. Many farmers are members of more than one cooperative and each membership is counted. Consequently, number of memberships exceeds the number of farmers. Total membership duplication cannot be eliminated with current reporting methods.

Member classification depends on the type of cooperative used and may not be related to the member's product(s) marketed or supplies purchased. For example, a member may use a cooperative to market only one of the farm products handled by the cooperative, or a member may use a cooperative classified in the marketing group to purchase one or more production items. A member's business with the cooperative, therefore, may not be in the group that represents the cooperative's major business volume (the criterion for

Figure 13— **Cooperatives Removed from RBS' List, 1989-98**



Based on a list of U.S. farmer cooperatives maintained by RBS. Mergers also include consolidations. Other includes cooperatives dropped due to inactivity and unknown and miscellaneous reasons.

classifying cooperatives in this report). The membership, however, will be included arbitrarily in that classification.

During the past decade, memberships in related-service and marketing cooperatives decreased at nearly twice the rate of memberships in farm supply cooperatives. Memberships in marketing cooperatives dropped 458,000, or 24.7 percent, while memberships in farm supply cooperatives decreased 261,000, or 12.8 percent.

Employees

Farmer cooperatives had an estimated 173,791 full-time employees in 1998, up from 172,199 in 1997, but still down from the 1995 peak of 175,399 (table 15). In 1997, it appeared that the number of full-time employees was declining in marketing cooperatives and increasing in farm supply cooperatives, but 1998 survey results showed employee numbers were up in marketing and farm supply cooperatives, but down in related-service cooperatives.

Overall, total number of full-time employees averaged 174,241 from 1994 to 1998. Although the number of full-time employees was up in 1998, it was still below the five-year average. The major change during this period was the significant increase in number of full-time employees by the miscellaneous marketing cooperatives, from 5,795 in 1994 to 9,191 in 1997.

Table 13— **Estimated number of branches operated by grain and farm supply cooperatives, 1992-98**

Year	Asset Group (million dollars)				
	Less than 5	5 - 9.9	10 - 24.9	25 or more	Total
			Number of Grain Cooperatives		
1992	902	211	114	16	1,243
1993	808	233	131	21	1,193
1994	772	226	138	24	1,159
1995	658	223	174	35	1,090
1996	618	229	176	43	1,066
1997	616	196	155	47	1,014
1998	550	216	150	48	964
			Number of Branches		
1992	441	480	529	417	1,867
1993	410	479	688	488	2,065
1994	408	535	674	424	2,041
1995	399	440	756	577	2,172
1996	387	505	743	691	2,326
1997	364	463	717	706	2,250
1998	292	517	774	716	2,299
			Number of Farm Supply Cooperatives		
1992	1,381	176	45	16	1,618
1993	1,286	183	64	14	1,547
1994	1,203	199	76	19	1,496
1995	1,134	211	97	16	1,458
1996	1,064	213	109	17	1,403
1997	1,022	232	109	23	1,386
1998	928	277	112	30	1,347
			Number of Branches		
1992	724	482	208	1,363	2,777
1993	642	455	297	1,320	2,714
1994	610	468	344	1,335	2,787
1995	571	502	460	1,396	2,929
1996	542	523	526	1,438	3,029
1997	481	579	576	1,576	3,183
1998	528	548	570	1,672	3,318

Table 14— **Memberships in marketing, farm supply, and service cooperatives, 1989–98**

Period [1]	Marketing	Farm supply	Service	Total
		1,000		
1989	1,856	2,035	243	4,134
1990	1,882	2,006	232	4,119
1991	1,842	2,025	191	4,059
1992	1,839	2,020	212	4,072
1993	1,830	1,977	216	4,023
1994	1,805	1,936	245	3,986
1995	1,712	1,846	210	3,767
1996	1,682	1,795	187	3,664
1997 [2]	1,498	1,743	183	3,424
1998	1,398	1,774	181	3,353

[1] For years before 1989, see *Cooperative Historical Statistics*, CIR 1, Section 26, USDA, Revised April 1998. Cotton ginning cooperatives, livestock shipping associations, and rice driers were reclassified from marketing to service in 1989, 1992, and 1993, respectively.

[2] Number of memberships in farm supply cooperatives was revised.

Business Volume

Net cooperative business, unadjusted for price change, increased from $72.1 billion in 1989 to $104.7 billion in 1998 (table 16). When adjusted,[4] net business totaled $102.1 billion in 1998 (figure 16). Consequently, the difference between actual and real net business volume in 1998 was $2.6 billion. The real net business volume was near the actual value in 1998 due mainly to a decrease in prices received for farm products from 1989-98. Prices received for all farm commodities dropped 2.9 percent, while prices paid for production supplies increased 21.1 percent.

Marketing sales of four major commodity groups—dairy; grains and oilseeds, excluding cottonseed; fruits and vegetables; and livestock—decreased slightly from 83.5 percent in 1989 to 82.8 percent in 1998. In 1989 and a decade later, net volume (among commodity groups) was highest in dairy ($18.3 billion). In net volume terms, dairy was $25.3 billion and

[4] Marketing sales was deflated by the index of producer prices received for "all farm products" (1996 = 100). Supply sales and service receipts and other income were deflated by the index of prices paid by farmers for "production items," excluding interest, taxes, and wages (1996 = 100).

Figure 14— **Grain and Farm Supply Cooperatives and Branches, 1992-98**

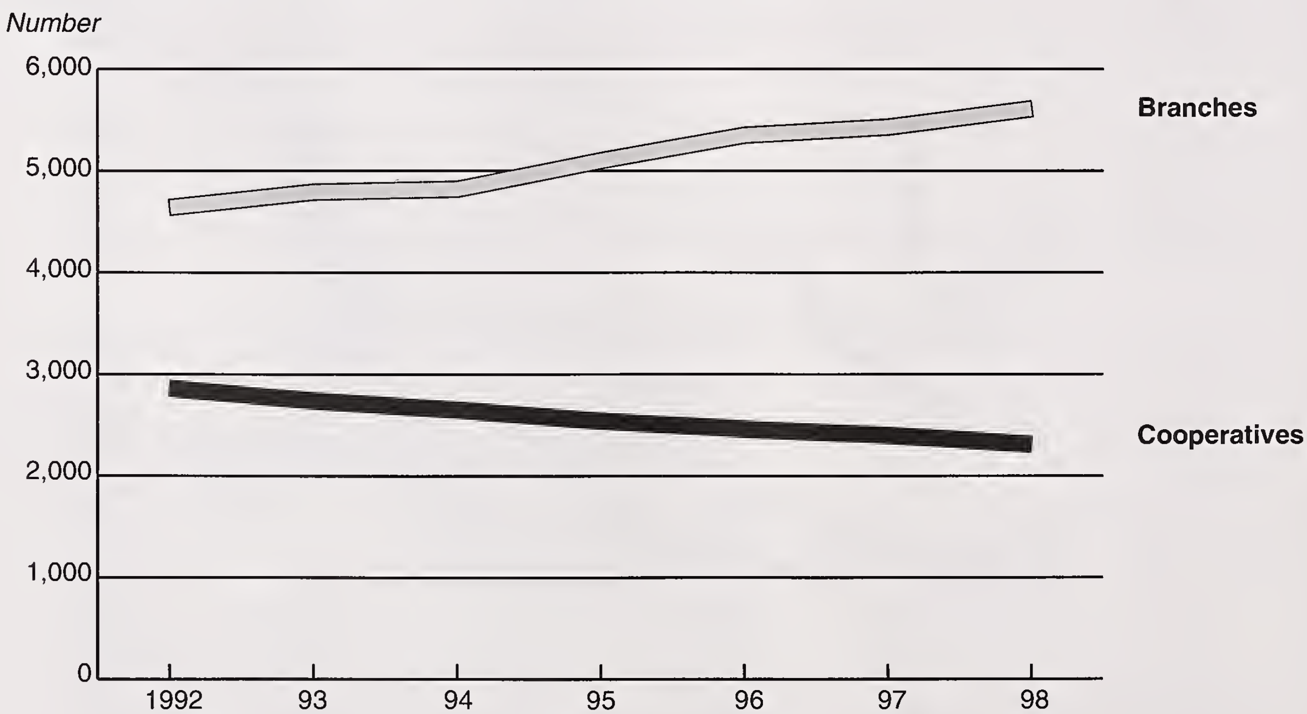


Figure 15— **Cooperatives' Memberships by Function, 1989-98**

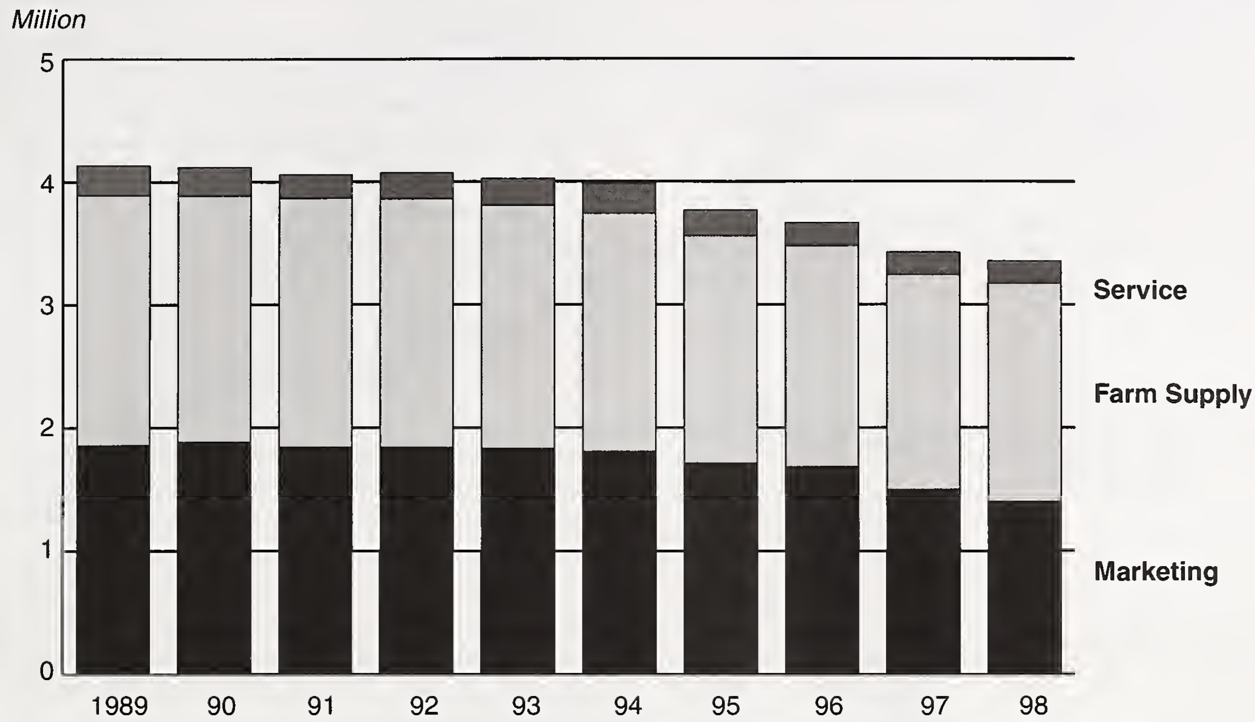


Table 15— **Cooperatives' number of full-time employees, 1994-98**

Commodity	Full-time Employees 1994	1995	1996	1997	1998
			Number		
Cotton	2,105	2,136	1,787	1,995	1,844
Dairy	31,261	29,828	27,621	28,323	27,056
Fruits & vegetables	21,201	24,944	26,456	22,847	23,734
Grains & oilseeds	24,759	24,811	25,981	23,538	23,873
Livestock, & poultry	26,408	28,635	28,453	26,399	28,031
Rice	2,796	2,785	2,636	2,713	2,655
Sugar	3,264	3,422	3,482	3,473	4,402
Other products	5,795	7,590	7,109	9,191	8,474
Marketing	117,589	124,151	123,525	118,479	120,069
Farm supply	50,524	45,302	45,566	47,870	48,171
Service	6,906	5,946	5,704	5,850	5,551
Total	175,019	175,399	174,795	172,199	173,791

grains and oilseeds $21.3 billion in 1998. In 1997, grains and oilseeds led commodity groups due to high grain prices (figure 17).

Milk and milk product sales showed the strongest growth in the 1989-98 decade. Prior to 1997, grain and oilseed sales showed a strong upward trend, but subsequently dropped.

In the farm supply group, petroleum, feed, and fertilizer were especially important. They accounted for 72.9 percent of cooperatives' total farm supply sales in 1989 and 70 percent in 1998. The drop reflected increased sales of crop protectants. In 1989, they accounted for 8.4 percent of farm supply sales versus 12.9 percent in 1998.

The trend for cooperatives' sales of petroleum, feed, fertilizer, and crop protectants, except for 1998, was upward, while seed sales remained fairly stable (figure 18). In 1998, however, feed, petroleum, and fertilizer sales dropped, due mainly to lower prices.

Net marketing of farm products totaled $53.2 billion in 1989 and increased every year except in 1991 and 1997-98. In 1998, net business volume of farm products marketed dropped to $76.6 billion from $77.8 billion in 1997 (table 17). Aggregate farm supply sales increased every year, from $16.9 billion in 1989 to $25.2 billion in 1997, but then dropped in 1998 to $24.6 billion. Service receipts increased from $2 billion in 1989 to $3.5 billion in 1998, after reaching a high of $3.6 billion in 1997. In 1990, service receipts were expanded to include other income and revenue.

Gross business volume was $88.1 billion in 1989, $121 billion in 1998, and a record high of $128.1 billion in 1996. The 1996 record increase in business volume ($15.9 billion) was due mainly to higher prices for grains and oilseeds.

Table 16— **Cooperatives' net business volume, 1989 and 1998**[1]

Function	Net Business Volume 1989	1998
	Million dollars	
Products marketed:		
Beans and peas (dry edible)	149.6	187.2
Cotton	1,989.3	2,961.1
Dairy	18,339.0	25,329.4
Fruits and vegetables	7,888.0	9,391.2
Grains and oilseeds 2/	14,189.2	21,290.9
Livestock	4,046.2	7,418.1
Nuts	834.9	900.7
Poultry	1,193.9	2,137.3
Rice	764.8	932.0
Sugar	1776.8	2,444.7
Tobacco	610.9	348.5
Wool and mohair	33.4	6.8
Other products	1,431.1	[3] 3,294.2
Total farm products	53,247.2	76,642.0
Supplies purchased:		
Crop protectants	1,428.1	3,165.7
Feed	4,224.1	5,405.3
Fertilizer	3,337.2	5,170.3
Petroleum	4,768.7	6,616.3
Seed	573.0	731.8
Other supplies	2,576.0	3,462.0
Total farm supplies	16,907.2	24,551.4
Services provided:		
Trucking, cotton ginning, storage, grinding, locker plants, misc	1,974.3	3,473.2
Total business	72,128.7	104,666.6

[1] Excludes intercooperative business volume. Totals may not add due to rounding.

[2] Excludes cottonseed. Cottonseed sales were included with cotton. Cottonseed meal and oil sales were included with feed and other products, respectively.

[3] Includes value of processed oilseeds.

Net Income

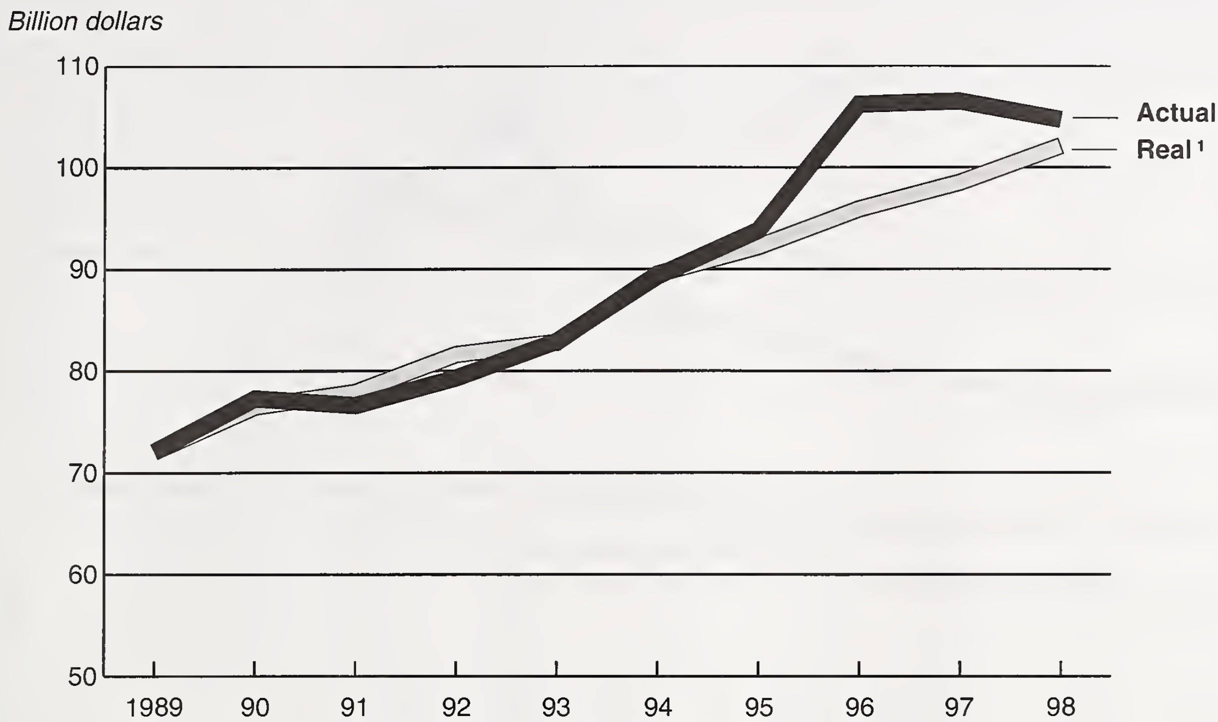
Starting with $1.85 billion in 1989, total net income fluctuated and finally set a record at $2.36 billion in 1995. It dipped in 1996, climbed back in 1997, but then significantly dropped to $1.7 billion in 1998 (table 18 and figure 19).

Net income from own operations and other cooperatives varied, but reflected better economic times in agriculture in the late 1990s compared with conditions in the late 1980s and early 1990s. In 1989, refunds from other cooperatives totaled $344 million, or 16.6 percent of total net income. In 1998, refunds totaled $573 million, or 32.9 percent of total net income. However, beginning with 1998, refunds from CoBank and the St. Paul Bank for Cooperatives were also included.

Balance Sheet

Cooperatives' total assets grew by $16.9 billion from $29.6 billion in 1989 to $46.6 billion in 1998 (table 19 and figure 20), reflecting added investments in their own operations and investment in other cooperatives. In 1989, nearly $3.3 billion (11 percent of total assets) was investments in other cooperatives, including CoBank and Banks for Cooperatives. In 1998, these investments were $4.7 billion, up $1.4 billion.

Figure 16— **Cooperatives' Net Business Volume, 1989-98**



[1] Actual sales were adjusted for price change based on 1989 = 100.

Cooperatives' total liabilities also grew, from $16.3 billion in 1989 (55.1 percent) to $26.6 billion, up $10.3 billion in 10 years.

Total liabilities financed 57.1 percent of total assets in 1998. The strength of a balance sheet, however, depends on the proportion of total assets financed by net worth or equity capital. In 1989, cooperatives' net worth totaled $13.3 billion and financed 44.9 percent of total assets. By 1998, total net worth reached nearly $20 billion and financed 42.9 percent. During the decade, the proportion of net worth used to finance total assets dropped to 40.8 percent in 1996. Most would say farmer cooperatives, overall, have a strong balance sheet.

IV—Other Service Cooperatives

In 1998, service cooperatives, other than those directly related to marketing and purchasing, included farm credit system cooperatives, rural telephone cooperatives, rural electric cooperatives, rural credit unions, and dairy herd improvement associations.

Farm Credit System

The Farm Credit System (FCS) is a nationwide network of financial cooperatives that lend to agriculture and rural America. FCS provides credit and related services to farmers, ranchers, producers and harvesters of aquatic products, rural homeowners, certain farm-related businesses, agricultural and aquatic cooperatives, rural utilities, and to certain foreign or domestic entities in connection with international transactions.

By 1999, FCS was represented by 39 Federal Land Bank Associations (FLBAs); 33 Federal Land Credit Associations (FLCAs); 63 Production Credit Associations (PCAs); 1 Agricultural Credit Bank (ACB), (CoBank, ACB); 54 Agricultural Credit Associations (ACAs); 6 Farm Credit Banks (FCBs); and 1 Bank for Cooperatives (BC) (table 20).

The combined assets of FCS for 1998 totaled $84.1 billion—up 7.7 percent from $78.1 billion in 1997 (table 21). Net worth was $12.5 billion, up 7.1 percent from 1997, and net income was $1.25 billion, down from $1.27 billion, or 1.3 percent.

The FLBAs originate and service long-term loans made by FCBs. Loan proceeds are used to purchase agricultural real estate and rural homes and refinance agricultural real estate and rural home mortgages.

Figure 17— **Cooperatives' Net Sales of Selected Commodities, 1989-98**

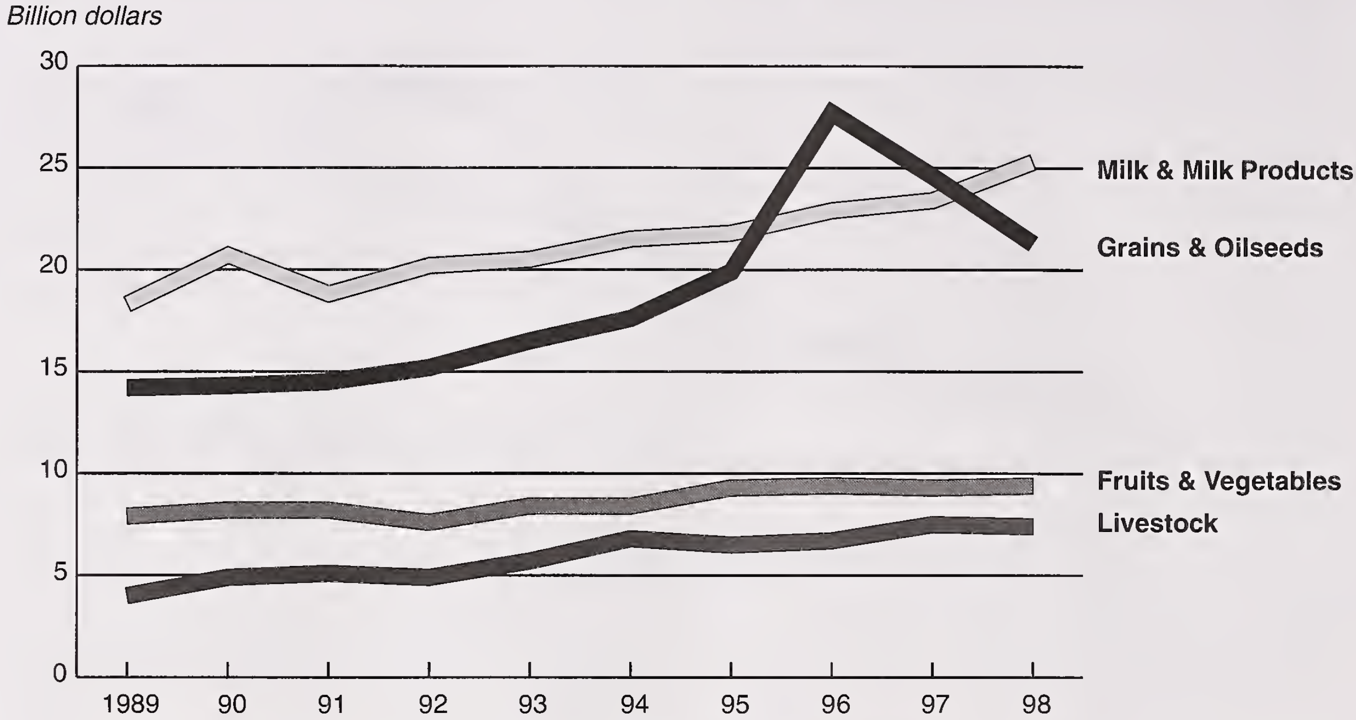


Figure 18— **Cooperatives' Net Sales of Selected Farm Supplies, 1989-98**

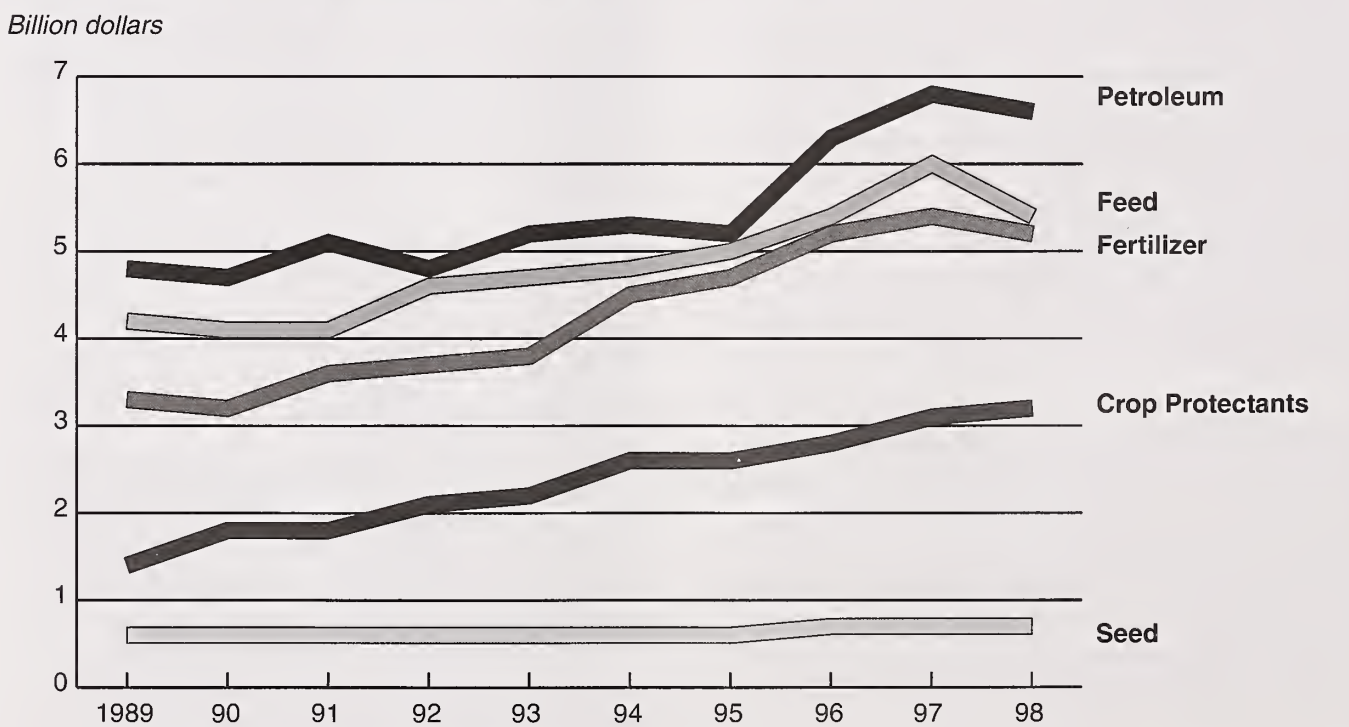


Table 17— **Cooperatives' gross and net business volumes, 1989–98[1]**

Period [2]	Gross volume: Farm products	Gross volume: Farm supplies	Gross volume: Services [3]	Gross volume: Total	Net volume: Farm products	Net volume: Farm supplies	Net volume: Services [3]	Net volume: Total
				Billion dollars				
1989	60.3	25.8	2.0	88.1	53.2	16.9	2.0	72.1
1990	64.1	26.3	2.3	92.7	57.8	17.1	2.3	77.3
1991	61.4	26.8	2.5	90.8	56.2	17.9	2.5	76.6
1992	63.8	27.0	2.6	93.4	58.2	18.5	2.6	79.3
1993	66.8	28.2	2.7	97.7	60.9	19.2	2.7	82.9
1994	72.1	30.4	3.0	105.5	65.5	20.8	3.0	89.3
1995	77.9	31.0	3.3	112.2	69.3	21.2	3.3	93.8
1996	90.3	34.7	3.1	128.1	79.4	23.7	3.1	106.2
1997 [4]	85.9	37.1	3.6	126.7	77.8	25.2	3.6	106.7
1998	84.5	33.0	3.5	121.0	76.6	24.6	3.5	104.7
				Percent				
1989	68.4	29.3	2.3	100	73.8	23.4	2.8	100
1990	69.1	28.4	2.5	100	74.9	22.1	3.0	100
1991	67.7	29.5	2.8	100	73.3	23.4	3.3	100
1992	68.3	28.9	2.8	100	73.4	23.4	3.2	100
1993	68.4	28.8	2.8	100	73.5	23.2	3.3	100
1994	68.4	28.8	2.8	100	73.4	23.3	3.3	100
1995	69.5	27.6	2.9	100	73.9	22.6	3.5	100
1996	70.5	27.1	2.4	100	74.8	22.3	2.9	100
1997	67.8	29.3	2.9	100	73.0	23.6	3.4	100
1998	69.9	27.2	2.9	100	73.2	23.5	3.3	100

[1] Gross includes and net excludes intercooperative business. Totals may not add due to rounding.
[2] For years prior to 1989, see *Cooperative Historical Statistics*, CIR 1, Section 26, USDA, Revised April 1998. Data for prior years are not entirely comparable due to revisions in statistical procedures.
[3] Services related to marketing or supply purchasing not included in the volumes reported for these activities. Beginning with 1990, other income and revenue were included with service receipts.
[4] Revised.

Of the 33 FLCAs operating on Jan. 1, 1999, 18 were in the AgriBank District and 11 in the Western District. FLCAs were authorized by the Agricultural Credit Act of 1987. FLCAs are former FLBAs that were given direct-lending authority by FCBs.

PCAs provide farmers and ranchers short- and intermediate-term loans for various purposes, such as operating expenses, farm equipment and livestock purchases, and farm buildings and other capital improvements. Of the 63 PCAs, 18 were located in the AgriBank, FCB, District and 18 in the FCB of Wichita territory.

ACAs resulted from the merger of FLBAs or FLCAs with PCAs. ACAs offer both long- and short-term loans. Of the 54 ACAs operating on Jan. 1, 1999, 36 were in AgFirst, FCB, territory and 8 in the AgriBank, FCB, district.

The FCBs provide loans and support services to FLBAs, ACAs, FLCAs, and PCAs within their districts. Combined assets of the six FCBs, one ACB, and one BC totaled $76.6 billion in 1998, up from $71.1 billion in 1997 (table 22). Net worth in 1998 was $6.1 billion and net loans totaled $62.6 billion. Net income dropped to $578 million in 1998 from $692 million in 1997.

The St. Paul Bank for Cooperatives[5], the sole BC, is based in Minnesota. It offers a complete line of credit and related financial services to agricultural cooperatives, rural utilities, and other eligible customers nationwide.

CoBank, ACB, provides short-, intermediate-, and long-term credit to agricultural cooperatives, rural utility systems, and other rural businesses nationwide. It also provides credit to the Farm Credit Associations serving agricultural producers in the Northeast. CoBank, ACB, is owned by about 2,300 stockholders, consisting of U.S. farmer cooperatives, rural utilities,

[5] Merged with CoBank on July 1, 1999.

Table 18— **Net income of farmer cooperatives, 1989–98**[1]

Year	From own operations	From other cooperatives[2]	Total
		Million dollars	
1989	1,508	343	1,851
1990	1,062	378	1,440
1991	1,152	418	1,570
1992	1,034	406	1,440
1993	985	373	1,358
1994	1,571	392	1,963
1995	1,766	597	2,363
1996	1,475	773	2,248
1997	1,557	757	2,314
1998	1,169	573	1,742

[1] Totals may not add due to rounding. Excludes income from cooperative pooling operations.

[2] Dividends and patronage refunds received from other marketing, farm supply, and related–service cooperatives, CoBank, and Banks for Cooperatives.

ACAs, and other businesses serving rural America. CoBank also finances U.S. agricultural exports and provides international banking services for farmer cooperatives.

The combined assets of the St. Paul Bank and CoBank increased from $21.3 billion in 1997 to $22.2 billion in 1998. Net worth totaled nearly $1.8 billion. As of Dec. 31, 1998, the two banks had net loans of $17.5 billion and net income of $153 million, down from $176 million in 1997 (table 23).

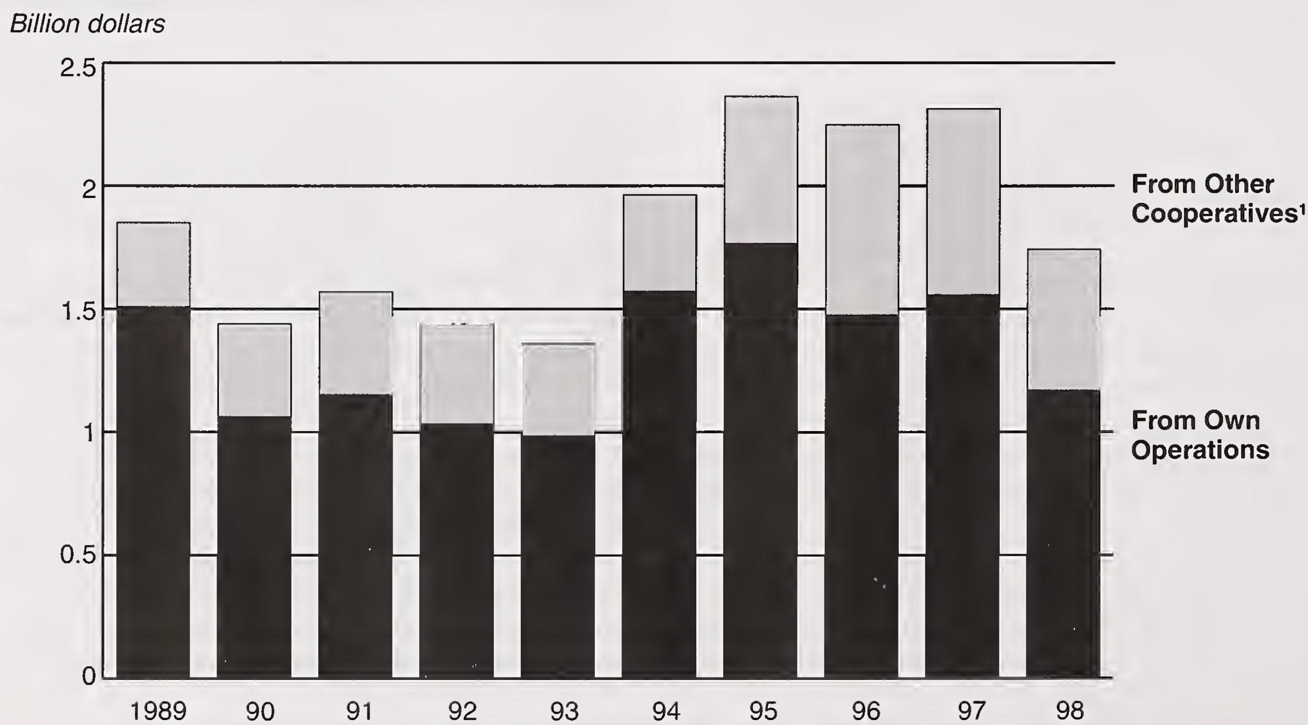
Rural Telephone Cooperatives

As of Dec. 31, 1998, the 220 rural telephone cooperatives borrowing from the Rural Electrification Administration (REA) had revenues of $1,271 million and 1,419,000 subscriber members. Iowa had the most cooperatives, with 31 (14.1 percent of the total). North Carolina had the most subscriber-members (10.9 percent) of any State (table 24). Texas led all States in revenue, with $134 million (10.5 percent).

Rural Electric Cooperatives

Rural electric cooperatives dropped in number to 662 from 744 in 1997, and they had 10.8 million consumer members and revenue of $14.2 billion (table 25).

Figure 19— **Cooperatives' Net Income, 1989-98**



[1] Includes dividends and patronage refunds from other farmer cooperatives, CoBank, and the St. Paul Bank for Cooperatives.

Table 19— **Combined balance sheet data for farmer cooperatives, 1989–98**

Year	Assets from own operations	Investments in other co–ops	Total assets	Total liabilities	Net worth
			Million dollars		
1989	26,389	3,260	29,649	16,337	13,313
1990	26,948	3,076	30,024	16,575	13,449
1991	27,887	3,381	31,268	17,227	14,040
1992	28,967	3,027	31,994	17,780	14,213
1993	30,484	2,962	33,446	18,634	14,812
1994	32,784	3,176	35,960	20,339	15,621
1995	37,046	3,228	40,274	23,643	16,631
1996	39,011	3,577	42,588	25,195	17,392
1997	39,430	4,566	43,996	25,459	18,537
1998	41,884	4,676	46,560	26,606	19,954
			Percent of total assets		
1989	89.0	11.0	100	55.1	44.9
1990	89.8	10.2	100	55.2	44.8
1991	89.2	10.8	100	55.1	44.9
1992	90.5	9.5	100	55.6	44.4
1993	91.1	8.9	100	55.7	44.3
1994	91.2	8.8	100	56.6	43.4
1995	92.0	8.0	100	58.7	41.3
1996	91.6	8.4	100	59.2	40.8
1997	89.6	10.4	100	57.9	42.1
1998	90.0	10.0	100	57.1	42.9

[1] Includes investments in other farmer cooperatives, CoBank, and Banks for Cooperatives.

Texas had the most associations, with 40 (6 percent of the total), while Georgia had the most consumer members, with 1,034 (9.6 percent), and the largest revenue, $1,393 million (9.8 percent).

Rural Credit Unions

The 653 rural credit unions reported 4.4 million members and savings of nearly $19.9 billion. Wisconsin led all States in number of associations, with 66, or 10.1 percent of the total. California had the most members and credit union savings, with more than 1 million and $5.4 billion, respectively. California, Wisconsin, and Michigan accounted for more than 2 million memberships (45.9 percent of the total) and nearly $9.1 billion in savings, or 45.7 percent of the total (table 26).

Dairy Herd Improvement Associations

Dairy Herd Improvement Associations (DHIA) had 34,820 memberships in 1998 (table 27), down from 38,920 in 1997. The DHIAs tested 4.2 million cows in 1998, down from 4.5 million in 1997. Wisconsin (9,014), Pennsylvania (4,748), Minnesota (3,986), and New York (3,014) combined accounted for 59.6 percent of total members, down slightly from 60 percent in 1997. About 822,900 (19.7 percent) of the cows tested were in California, up from 19.4 percent.

Figure 20— **Cooperatives' Net Worth and Liabilities, 1989-98**

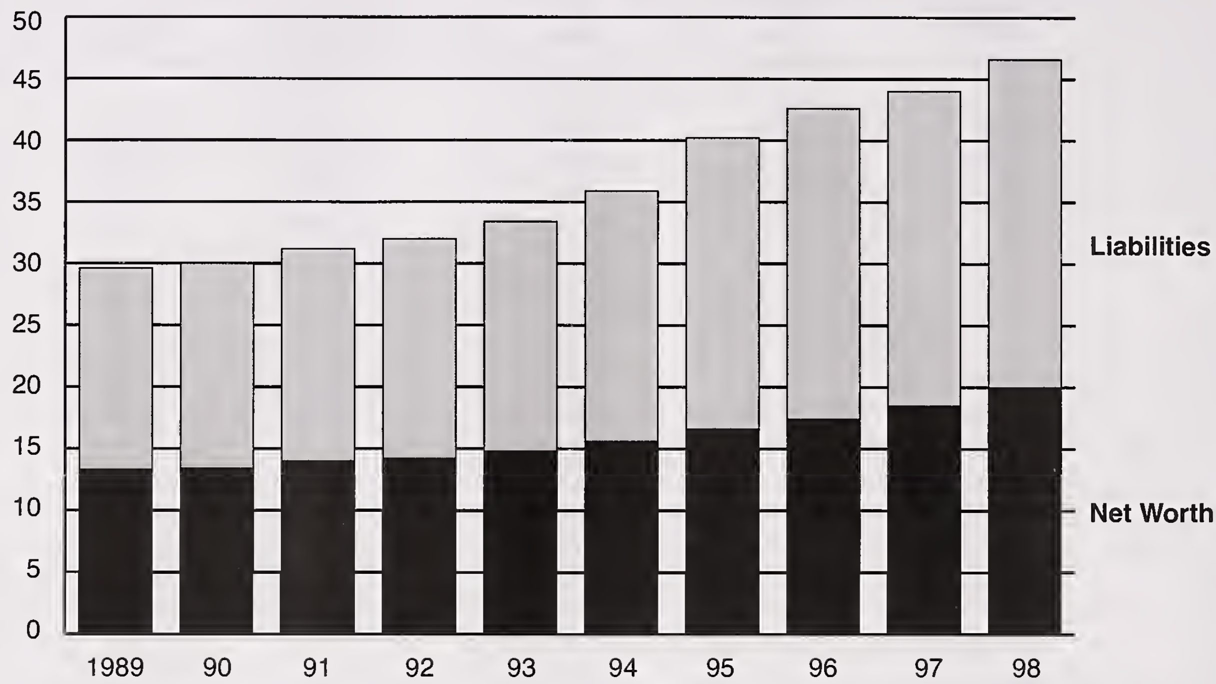


Table 20— **Farm Credit Association Structure, Jan. 1, 1999**[1]

District or bank affiliation	FLBA	PCA	ACA	FLCA	ACB	FCB	BC
			Number				
CoBank, ACB[2]	-	-	4	-	1	-	-
AgFirst FCB	-	1	36	-	-	1	-
AgriBank, FCB	-	18	8	18	-	1	-
FCB of Wichita	19	18	-	3	-	1	-
FCB of Texas	20	15	-	-	-	1	-
Western FCB	-	10	5	11	-	1	-
AgAmerica, FCB	-	1	1	1	-	1	-
St. Paul BC	-	-	-	-	-	-	1
Total	39	63	54	33	1	6	1

- = No bank affiliation.

[1] FLBA = Federal Land Bank Association; PCA = Production Credit Association; ACA = Agricultural Credit Association; FLCA = Federal Land Credit Association; ACB = Agricultural Credit Bank; FCB = Farm Credit Bank; and BC= Bank for Cooperatives.

[2] CoBank, ACB serves cooperatives nationwide and ACAs in the former Springfield District.

Source: Farm Credit Administration, *Report on the Financial Condition and Performance of the Farm Credit System, 1999* McLean, VA, p. 3.

Table 21—**Farm Credit System's combined assets, net worth, and net income, 1994–98**[1]

Year	Assets	Net worth	Net income
		Million dollars	
1994	66,377	8,981	1,005
1995	71,439	9,864	1,165
1996	74,917	10,729	1,201
1997	78,144	11,694	1,267
1998	84,139	12,522	1,251

[1] *Farm Credit System, Annual Information Statements, 1998* Federal Farm Credit Banks, Funding Corporation, Jersey City, NJ., Feb. 24, 1999, p. F3.

Table 22—**Farm Credit Banks' combined assets, net worth, net loans, and net income, 1994-98**[1]

Year	Assets	Net worth	Net loans	Net income
		Million dollars		
1994	61,305	5,377	50,763	468
1995	65,754	5,629	54,525	555
1996	68,550	5,798	56,571	622
1997	71,124	6,069	58,504	692
1998	76,582	6,122	62,552	578

[1] As of December 31 of each year. Consolidated financial for six Farm Credit Banks, one Agricultural Credit Bank, and one Bank for Cooperatives.

Source: Farm Credit Administration, *Report on the Financial Condition and Performance of the Farm Credit System, 1998,* McLean, VA, pp. 25-26.

Table 23—**Combined assets, net worth, net loans, and net income of the St. Paul Bank for Cooperatives and CoBank, ACB, 1994–98**[1]

Year	Assets	Net worth	Net loans	Net income
		Million dollars		
1994	18,225	1,355	14,954	142
1995	21,326	1,488	17,553	175
1996	20,837	1,571	16,871	156
1997	21,282	1,674	16,821	176
1998	22,185	1,752	17,513	153

[1] As of December 31 of each year. Source: CoBank, ACB, *CoBank 1998 Annual Report Financial Information: Rural America's Cooperative Bank*, Englewood, CO, p. 10 and St. Paul Bank, *1998 Annual Report,* St. Paul, MN, p. 6.

Table 24—**Number, participation, and level of activity of rural telephone[1] co-ops by State, Dec. 31, 1998[2]**

State	Cooperatives	Members (subscribers)	Revenue	State	Cooperatives	Members (subscribers)	Revenue
	Number	*1,000*	*Mil. dol.*		*Number*	*1,000*	*Mil. dol.*
Alabama	3	27	20	New Hampshire	-	-	-
Alaska	7	66	74	New Jersey	-	-	-
Arizona	1	4	7	New Mexico	5	22	55
Arkansas	2	9	9	New York	-	-	-
California	-	-	-	North Carolina	9	154	87
Colorado	5	9	9	North Dakota	10	60	60
Delaware	-	-	-	Ohio	5	5	4
Florida	-	-	-	Oklahoma	1	10	16
Georgia	4	36	26	Oregon	5	17	16
Idaho	1	2	2	Pennsylvania	-	-	-
Illinois	7	25	25	South Carolina	5	105	74
Indiana	8	39	29	South Dakota	12	47	49
Iowa	31	64	54	Tennessee	7	141	94
Kansas	10	65	86	Texas	16	119	134
Kentucky	8	104	73	Utah	2	18	18
Louisiana	-	-	-	Vermont	-	-	-
Maine	-	-	-	Virginia	5	20	14
Maryland	-	-	-	Washington	-	-	-
Michigan	-	-	-	West Virginia	2	4	4
Minnesota	18	83	62	Wisconsin	11	47	35
Mississippi	-	-	-	Wyoming	1	1	3
Missouri	7	48	48				
Montana	7	59	75				
Nebraska	5	10	9				
Nevada	-	-	-	United States	220	1,419	1,271

- = None reported in the State.
[1] Source: Rural Utilities Service, USDA.
[2] Totals may not add due to rounding.

Table 25— **Number, participation, and level of activity of rural electric[1] cooperatives by State, Dec. 31, 1998[2]**

State	Cooperatives	Members (subscribers)	Revenue	State	Cooperatives	Members (subscribers)	Revenue
	Number	*1,000*	*Mil. dol.*		*Number*	*1,000*	*Mil. dol.*
Alabama	21	444	590	Nevada	1	5	26
Alaska	9	78	175	New Hampshire	-	-	-
Arizona	5	121	198	New Jersey	1	11	12
Arkansas	15	332	456	New Mexico	16	176	256
California	3	20	20	New York	4	16	13
Colorado	19	319	438	North Carolina	22	679	864
Delaware	1	56	62	North Dakota	19	116	200
Florida	11	442	559	Ohio	22	290	341
Georgia	36	1,034	1,393	Oklahoma	23	323	379
Idaho	4	29	34	Oregon	8	52	74
Illinois	11	78	124	Pennsylvania	11	175	178
Indiana	26	300	352	South Carolina	20	556	766
Iowa	29	143	220	South Dakota	30	124	160
Kansas	29	156	258	Tennessee	21	798	1,124
Kentucky	25	648	932	Texas	40	615	754
Louisiana	10	286	406	Utah	1	7	8
Maine	3	14	14	Vermont	1	9	8
Maryland	1	115	203	Virginia	12	354	515
Michigan	9	203	160	Washington	5	31	45
Minnesota	36	385	413	West Virginia	1	5	5
Mississippi	14	394	547	Wisconsin	17	130	124
Missouri	37	518	573	Wyoming	9	57	119
Montana	22	96	103				
Nebraska	2	9	18	United States	662	10,751	14,221

[1] Source: Rural Utilities Service, USDA.
[2] Totals may not add due to rounding.

Table 26— **Number, participation, and level of activity of rural credit unions[1] by State, Dec. 31, 1998[2]**

State	Cooperatives	Members	Savings	State	Cooperatives	Members	Savings
	Number	*1,000*	*Mil. dol.*		*Number*	*1,000*	*Mil. dol.*
Alabama	10	24	85	Montana	11	54	202
Alaska	1	22	97	Nebraska	17	21	95
Arizona	4	18	50	Nevada	6	51	327
Arkansas	3	7	27	New Hampshire	2	1	1
California	57	1,034	5,398	New Jersey	6	12	20
Colorado	15	21	76	New Mexico	3	46	191
Connecticut	1	1	1	New York	29	160	731
Delaware	1	3	9	North Carolina	13	29	63
Florida	14	102	402	North Dakota	30	100	576
Georgia	11	34	91	Ohio	12	39	67
Hawaii	16	100	587	Oklahoma	4	7	30
Idaho	9	16	47	Oregon	10	81	323
Illinois	10	63	259	Pennsylvania	19	31	77
Indiana	17	74	551	Rhode Island	3	57	556
Iowa	7	7	19	South Carolina	3	9	53
Kansas	16	76	231	South Dakota	7	11	31
Kentucky	7	31	81	Tennessee	8	14	37
Louisiana	9	15	41	Texas	32	102	363
Maine	10	25	97	Utah	9	16	46
Maryland	5	56	264	Vermont	3	19	51
Massachusetts	4	16	61	Virginia	6	47	161
Michigan	26	406	1,271	Washington	14	156	732
Minnesota	35	208	936	West Virginia	3	4	10
Mississippi	4	14	41	Wisconsin	66	599	2,415
Missouri	6	19	59	Wyoming	2	3	5
				United States [3]	653	4,439	19,870

[1] Source: Credit Union National Association, Inc. (Includes federally chartered and State-chartered credit unions.)
[2] Totals may not add due to rounding.
[3] Includes Puerto Rico with 37 cooperatives, 377,711 members, and $1.9 billion in savings.

Table 27—**Number, participation, and level of activity of dairy herd improvement associations [1] by State, Dec. 31, 1998[2]**

State	Members (herds)	Cows tested	State	Members (herds)	Cows tested
	Number	*1,000*		*Number*	*1,000*
Alabama	72	11.9	Montana	60	7.2
Alaska	1	(3)	Nebraska	287	33.7
Arizona	61	75.0	Nevada	19	9.3
Arkansas	90	8.7	New Hampshire	118	10.8
California	1,135	822.9	New Jersey	92	8.1
Colorado	88	37.5	New Mexico	27	36.9
Connecticut	129	15.4	New York	3,014	327.7
Delaware	34	4.4	North Carolina	255	41.1
Florida	113	59.1	North Dakota	95	9.3
Georgia	238	54.1	Ohio	1,252	104.4
Hawaii	5	2.5	Oklahoma	160	20.8
Idaho	240	73.6	Oregon	278	50.7
Illinois	744	57.7	Pennsylvania	4,748	321.3
Indiana	581	47.7	Rhode Island	8	.5
Iowa	1,501	114.5	South Carolina	89	17.2
Kansas	369	34.9	South Dakota	327	29.7
Kentucky	318	27.0	Tennessee	292	35.0
Louisiana	156	21.5	Texas	340	130.1
Maine	178	15.8	Utah	256	46.2
Maryland	460	40.1	Vermont	568	56.3
Massachusetts	137	11.9	Virginia	568	72.6
Michigan	1,121	143.5	Washington	288	73.9
Minnesota	3,986	302.2	West Virginia	75	7.8
Mississippi	89	14.4	Wisconsin	9,014	642.1
Missouri	570	50.8	Wyoming	4	.7
			United States[4]	34,820	4,182.2

[1] Source: Agricultural Research Service, USDA. Totals may not add due to rounding.
[2] Totals may not add due to rounding.
[3] Fewer than 500.
[4] Includes Puerto Rico with 170 members and 41,840 cows tested.

Appendix Tables

Appendix Table 1— **Number of co-ops[1] and memberships[2] by major business activity and State, 1997[3]**

State	Hqts. in State	Memberships	State	Hqts. in State	Memberships
BEANS AND PEAS, DRY EDIBLE			**FRUITS AND VEGETABLES[5] (Continued)**		
California	3	762	Massachusetts	4	487
Other States	4	2,097	Michigan	16	3,457
United States	7	2,859	Minnesota	3	290
			Mississippi	4	257
COTTON[4]			New Jersey	10	893
California	3	2,187	New York	9	935
Mississippi	3	2,911	North Carolina	4	115
Texas	4	24,908	North Dakota	3	179
Other States	6	12,538	Ohio	5	460
Foreign[6]	–	127	Oregon	12	1,437
United States	16	42,671	Pennsylvania	6	585
			Texas	5	339
DAIRY			Washington	21	5,026
California	10	1,774	Other States	22	4,328
Illinois	4	2,406	Foreign[6]	–	104
Iowa	8	5,015	United States	259	43,975
Massachusetts	3	243			
Michigan	3	3,993	**GRAINS AND OILSEEDS, EXCLUDING COTTONSEED[7]**		
Minnesota	45	17,348	Arkansas	3	1,259
Missouri	3	3,839	Colorado	16	8,830
New York	63	5,763	Idaho	5	1,275
North Dakota	5	1,137	Illinois	123	101,555
Ohio	7	3,942	Indiana	22	31,638
Oregon	3	803	Iowa	133	94,930
Pennsylvania	21	6,438	Kansas	124	115,005
Texas	5	1,908	Michigan	6	2,801
Virginia	4	1,142	Minnesota	107	69,543
Wisconsin	31	29,375	Mississippi	6	2,558
Other States	21	19,752	Missouri	21	23,255
United States	236	104,878	Montana	13	9,411
			Nebraska	73	69,596
FRUITS AND VEGETABLES[5]			North Dakota	133	61,197
Arizona	4	699	Ohio	42	31,422
Arkansas	5	384	Oklahoma	41	29,487
California	71	20,439	Oregon	3	3,630
Colorado	9	455	South Dakota	70	51,320
Florida	27	2,022	Texas	38	18,773
Georgia	4	112	Washington	25	10,110
Hawaii	10	430	Other States	10	3,903
Maine	5	542	Foreign[6]	–	3,511
			United States	1,014	745,009

Continued

Appendix Table 1— **Number of co-ops [1] and membership[2] by major business activity and State, 1997[3] (continued)**

State	Hqts. in State	Memberships
LIVESTOCK[5]		
Alabama	6	5,240
Hawaii	4	10,341
Idaho	3	4,832
Illinois	3	40,993
Indiana	3	2,301
Kentucky	4	671
Michigan	4	34,969
Mississippi	6	5,112
Missouri	7	4,805
North Dakota	8	9,548
Ohio	4	14,483
Virginia	5	1,311
West Virginia	3	485
Wisconsin	5	3,782
Other States	23	96,905
Foreign[6]	–	233
United States	88	236,011
NUT[6]		
California	5	6,771
Other States	12	34,884
United States	17	41,655
POULTRY[9]		
California	3	83
Utah	3	108
Other States	14	33,724
Foreign[6]	–	378
United States	20	34,293
RICE[5]		
California	5	1,978
Louisiana	3	208
Texas	6	1,100
Other States	4	10,682
Foreign[6]	–	1
United States	18	13,969
SUGAR[10]		
Idaho	7	2,306
Louisiana	9	529
Michigan	8	2,797
Minnesota	3	2,225
Montana	3	540
Wyoming	4	586
Other States	17	4,840
Foreign[6]	–	2
United States	51	13,825

State	Hqts. in State	Memberships
TOBACCO[6]		
Kentucky	5	78,135
North Carolina	8	24,908
Tennessee	7	67,582
Virginia	3	1,374
Other States	3	948
United States	26	172,947
WOOL AND MOHAIR		
Idaho	5	1,825
Montana	20	872
North Dakota	5	433
Ohio	3	1,722
Pennsylvania	16	1,616
Utah	4	420
Virginia	8	568
Wyoming	4	185
Other States	23	9,007
Foreign[6]	–	96
United States	88	16,744
MISCELLANEOUS[11]		
Alaska	9	7,469
California	11	952
Florida	6	315
Georgia	3	295
Hawaii	7	806
Maine	15	918
Michigan	3	128
Minnesota	6	1,932
Mississippi	3	184
North Dakota	7	5,440
Oregon	3	333
Washington	5	749
Other States	23	9,475
United States	101	28,996
TOTAL MARKETING		
Alabama	10	14,517
Alaska	9	7,675
Arizona	5	2,569
Arkansas	14	14,205
California	117	37,853
Colorado	28	13,331
Florida	38	6,076
Georgia	12	22,128
Hawaii	25	11,874
Idaho	24	13,114
Illinois	134	145,509
Indiana	26	37,048

Continued

Appendix Table 1— **Number of co-ops[1] and membership[2] by major business activity and State, 1997[3]** (continued)

State	Hqts. in State	Memberships
TOTAL MARKETING (Continued)		
Iowa	147	111,475
Kansas	124	118,592
Kentucky	13	82,228
Louisiana	18	3,070
Maine	22	1,850
Maryland	3	1,102
Massachusetts	10	1,069
Michigan	41	50,042
Minnesota	169	147,838
Mississippi	23	12,867
Missouri	31	32,930
Montana	40	12,197
Nebraska	81	75,151
New Jersey	15	2,860
New Mexico	4	6,549
New York	79	9,283
North Carolina	20	26,869
North Dakota	166	80,077
Ohio	65	53,715
Oklahoma	45	42,392
Oregon	25	9,064
Pennsylvania	46	8,776
South Carolina	4	3,327
South Dakota	72	59,951
Tennessee	8	68,950
Texas	69	53,677
Utah	12	3,934
Vermont	5	1,641
Virginia	23	27,453
Washington	56	17,487
West Virginia	6	1,533
Wisconsin	42	35,617
Wyoming	8	1,236
Other States	7	2,679
Foreign[6]	—	4,452
United States	1,941	1,497,832
FARM SUPPLY		
Alabama	48	39,097
Arkansas	40	47,990
California	20	14,958
Colorado	22	20,317
Florida	6	8,952
Georgia	7	2,596
Idaho	16	9,965
Illinois	65	87,647
Indiana	32	53,766
Iowa	73	74,655
Kansas	21	16,310
FARM SUPPLY (Continued)		
Kentucky	28	121,873
Louisiana	21	8,899
Maryland	13	52,414
Massachusetts	4	3,583
Michigan	27	18,095
Minnesota	156	121,795
Mississippi	37	89,728
Missouri	43	122,522
Montana	39	16,798
Nebraska	43	33,924
New York	11	33,488
North Carolina	3	45,346
North Dakota	115	48,872
Ohio	23	14,243
Oklahoma	32	25,921
Oregon	13	12,675
Pennsylvania	7	31,458
South Dakota	73	50,544
Tennessee	70	70,565
Texas	48	38,031
Utah	8	5,642
Virginia	38	118,430
Washington	31	10,534
West Virginia	14	59,636
Wisconsin	120	115,699
Wyoming	6	3,454
Other States	13	92,227
Foreign[6]	—	582
United States	1,386	1,743,231
SERVICE[12]		
Alabama	5	177
Arizona	4	788
Arkansas	6	1,047
California	48	3,904
Hawaii	5	116
Illinois	4	73
Iowa	3	1,728
Kansas	3	105
Louisiana	11	1,587
Michigan	5	5,643
Minnesota	43	26,425
Mississippi	23	7,342
Nebraska	3	472
New Mexico	4	1,386
New York	6	7,598
North Carolina	6	120
North Dakota	16	496
Ohio	7	7,264
Oklahoma	24	7,118

Continued

Appendix Table 1— **Number of co-ops[1] and memberships[2] by major business activity and State, 1997[3]** (continued)

State	Hqts. in State	Memberships
SERVICE[12] (Continued)		
Pennsylvania	7	13,144
Texas	155	37,123
Washington	4	2,970
Wisconsin	50	26,245
Other States	22	30,234
United States	464	183,105
TOTAL		
Alabama	63	53,791
Alaska	9	7,675
Arizona	10	46,757
Arkansas	60	63,242
California	185	56,715
Colorado	51	33,648
Connecticut	4	3,174
Delaware	3	29,685
Florida	46	27,124
Georgia	21	25,059
Hawaii	32	13,397
Idaho	41	23,079
Illinois	203	233,229
Indiana	60	90,915
Iowa	223	187,858
Kansas	148	135,007
Kentucky	42	208,606
Louisiana	50	13,556
Maine	24	9,214
Maryland	18	54,122
Massachusetts	14	5,050
Michigan	73	73,780
Minnesota	368	296,058
Mississippi	83	109,937
Missouri	75	156,093
Montana	79	28,995
Nebraska	127	109,547
New Jersey	19	7,724
New Mexico	9	8,311
New York	96	50,369
North Carolina	29	72,335
North Dakota	297	129,445
TOTAL (Continued)		
Ohio	95	75,222
Oklahoma	101	75,431
Oregon	40	21,747
Pennsylvania	60	53,378
South Carolina	6	3,745
South Dakota	145	110,927
Tennessee	79	141,185
Texas	272	128,831
Utah	21	11,550
Vermont	5	6,340
Virginia	63	150,011
Washington	91	30,991
West Virginia	20	61,235
Wisconsin	212	177,561
Wyoming	14	4,690
Other States	5	2,793
Foreign[6]	—	5,034
United States	3,791	3,424,168

[1] Includes centralized and federated cooperatives and those with mixed organizational structures.
[2] Revised. Includes farmer-members (entitled to vote for directors), but not nonvoting patrons. (Duplication in these membership figures occurs because many farmers belong to more than one cooperative.) Totals may not add due to rounding.
[3] Data covering operations of cooperatives for fiscal years that ended in 1997. States listed are those with more than two cooperatives or where disclosure is not a problem.
[4] Cotton ginning cooperatives are included as service cooperatives.
[5] Cooperatives performing specific services related to a commodity in this group were included. Incorporated local associations of a federation that perform the actual marketing or processing were counted.
[6] Includes memberships located in other countries.
[7] Excludes soybean meal and oil.
[8] Membership fluctuates annually and is affected by the extent to which producers participate in price stabilization programs.
[9] Includes eggs, turkeys, ratite, squab, and related products.
[10] Includes sugar, sugarcane, sugar beets, honey, maple syrup, molasses, and sorghum.
[11] Includes forest products, hay, hops, nursery stock, coffee, and other farm products not separately classified.
[12] Cooperatives providing services related to marketing or purchasing activities. Major services provided are cotton ginning, trucking, storing, grinding, drying, and artificial insemination.

Appendix Table 2— **Cooperatives' business volume[1] by commodity and State, 1997[2]**

State	Business volume: Gross	Business volume: Net
	1,000 dollars	
PRODUCTS MARKETED:		
BEANS AND PEAS, DRY EDIBLE		
California	89,081	89,081
Other States	99,910	99,910
United States	188,991	188,991
COTTON		
California	662,564	607,335
Mississippi	384,464	371,889
Texas	940,528	939,974
Other States	1,086,781	1,084,688
United States	3,074,337	3,003,886
DAIRY		
California	3,107,394	2,945,132
Illinois	1,195,595	975,839
Iowa	1,164,679	1,026,053
Massachusetts	58,125	55,772
Michigan	705,268	686,999
Minnesota	2,700,430	2,281,830
Missouri	1,136,673	967,669
New York	1,648,294	1,171,679
North Dakota	194,963	163,812
Ohio	981,016	930,480
Oregon	303,227	258,790
Pennsylvania	1,170,426	976,137
Texas	902,972	851,742
Virginia	121,115	112,589
Wisconsin	4,438,688	3,982,844
Other States	6,449,093	5,986,703
United States	26,277,957	23,374,069
FRUITS AND VEGETABLES		
Arizona	152,410	133,225
Arkansas	1,337	1,337
California	3,673,516	3,367,469
Colorado	18,056	18,056
Florida	1,228,521	1,190,207
Georgia	16,701	12,344
Hawaii	24,190	24,190
Maine	25,400	25,400
FRUITS AND VEGETABLES (Continued)		
Massachusetts	530,847	530,847
Michigan	594,750	483,638
Minnesota	3,522	3,522
Mississippi	11,926	11,478
New Jersey	204,968	204,968
New York	310,519	285,781
North Carolina	29,270	27,751
North Dakota	10,887	10,887
Ohio	6,241	6,241
Oregon	795,955	794,784
Pennsylvania	334,682	324,706
Texas	49,879	16,394
Washington	867,920	862,568
Other States	930,553	917,304
Foreign[3]	15,091	15,091
United States	9,837,141	9,268,189
GRAINS AND OILSEEDS, EXCLUDING COTTONSEED		
Arkansas	296,682	258,326
Colorado	282,053	268,666
Idaho	42,165	42,071
Illinois	2,679,085	2,516,121
Indiana	732,323	712,298
Iowa	4,808,129	4,647,143
Kansas	2,055,805	1,857,357
Michigan	136,923	130,162
Minnesota	4,279,883	3,446,416
Mississippi	152,100	150,267
Missouri	978,608	811,773
Montana	392,483	262,009
Nebraska	2,369,748	2,156,557
North Dakota	1,978,377	1,635,018
Ohio	867,857	842,806
Oklahoma	314,118	289,403
Oregon	557,137	395,410
South Dakota	1,489,032	1,250,125
Texas	1,224,510	697,949
Washington	753,804	655,433
Other States	1,008,756	843,188
Foreign[3]	1,383,168	770,665
United States	28,782,746	24,639,161

Continued

Appendix Table 2— **Cooperatives' business volume[1] by commodity and State, 1997[2] (continued)**

State	Business volume Gross	Business volume Net
	1,000 dollars	
LIVESTOCK		
Alabama	61,039	61,039
Hawaii	23,172	23,172
Idaho	66,304	66,304
Illinois	628,659	627,249
Indiana	277,997	277,869
Kentucky	77,629	77,629
Michigan	397,759	397,759
Mississippi	86,523	86,523
Missouri	551,673	551,673
North Dakota	123,308	120,214
Ohio	314,034	314,034
Virginia	27,956	27,956
West Virginia	2,402	2,402
Wisconsin	448,197	444,975
Other States	4,305,890	4,290,556
Foreign[3]	90,995	90,995
United States	7,483,538	7,460,349
NUTS		
California	694,469	694,469
Other States	185,807	185,807
United States	880,276	880,276
POULTRY[4]		
California	36,334	36,334
Utah	134,246	134,246
Other States	1,947,438	1,947,438
United States	2,118,017	2,118,017
RICE		
California	228,822	227,488
Louisiana	18,115	18,115
Texas	57,046	57,046
Other States	627,505	627,505
United States	931,487	930,154
SUGAR		
Idaho	455,573	335,616
Louisiana	293,726	293,726
Michigan	120,495	120,495
Minnesota	633,023	633,023
Montana	53,731	53,731
Wyoming	52,673	52,673
Other States	813,603	789,034
Foreign[3]	5,294	5,294
United States	2,428,119	2,283,591
TOBACCO		
Kentucky	286,023	286,023
North Carolina	231,176	231,176
Tennessee	68,695	68,695
Virginia	3,406	3,406
Other States	3,575	3,575
United States	592,876	592,876
WOOL AND MOHAIR		
Idaho	50	50
Montana	680	680
North Dakota	60	60
Ohio	8,429	804
Pennsylvania	220	220
Utah	1,776	1,776
Virginia	85	85
Wyoming	563	563
Other States	6,772	6,772
Foreign	297	297
United States	18,931	11,306
MISCELLANEOUS MARKETING[5]		
Alaska	11,583	11,583
California	46,862	46,862
Florida	39,469	39,469
Georgia	7,253	7,253
Hawaii	30,430	30,430
Maine	33,286	33,286
Michigan	73,720	73,720
Minnesota	767,117	645,972

Continued

Appendix Table 2— **Cooperatives' business volume[1] by commodity and State, 1997[2]** (continued)

State	Business volume Gross	Business volume Net
	1,000 dollars	
MISCELLANEOUS MARKETING[5] (Continued)		
Mississippi	144,061	143,437
North Dakota	100,785	100,785
Oregon	101,860	101,860
Washington	149,787	149,787
Other States	1,716,949	1,595,347
Foreign[3]	111,870	111,870
United States	3,335,031	3,091,660
TOTAL FARM PRODUCTS MARKETED		
Alabama	820,882	817,312
Alaska	11,583	11,583
Arizona	705,295	665,186
Arkansas	1,424,071	1,376,465
California	8,709,783	8,184,912
Colorado	576,596	559,816
Florida	2,184,453	2,138,103
Georgia	1,064,144	1,047,963
Hawaii	100,080	100,080
Idaho	1,129,126	1,004,175
Illinois	4,558,569	4,171,689
Indiana	1,534,292	1,450,553
Iowa	8,296,195	7,949,780
Kansas	2,987,577	2,748,145
Kentucky	655,674	644,407
Louisiana	701,620	621,869
Maine	109,676	108,270
Maryland	243,747	218,023
Massachusetts	596,489	594,136
Michigan	2,079,555	1,943,414
Minnesota	8,732,932	7,351,470
Mississippi	851,757	836,278
Missouri	2,799,992	2,463,685
Montana	520,027	389,542
Nebraska	4,002,012	3,727,152
New Jersey	256,916	250,928
New Mexico	562,203	550,215
New York	2,312,397	1,811,043
North Carolina	615,232	596,992
North Dakota	2,760,792	2,383,188
Ohio	2,405,401	2,292,388
Oklahoma	738,379	702,335
Oregon	1,876,430	1,657,532
Pennsylvania	1,605,305	1,401,041
South Carolina	208,984	208,416
South Dakota	2,008,297	1,692,889

State	Business volume Gross	Business volume Net
	1,000 dollars	
TOTAL FARM PRODUCTS MARKETED (Continued)		
Tennessee	180,388	177,321
Texas	3,349,361	2,735,266
Utah	466,043	454,676
Vermont	356,839	324,532
Virginia	223,407	207,334
Washington	2,909,220	2,739,142
West Virginia	80,015	75,315
Wisconsin	5,583,838	5,085,983
Wyoming	69,606	69,500
Other States	377,552	308,267
Foreign[3]	1,606,715	994,212
United States	85,949,447	77,842,524
FARM SUPPLIES PROVIDED:		
CROP PROTECTANTS		
Alabama	46,546	45,146
Arkansas	185,726	93,832
California	36,945	26,644
Colorado	41,214	29,068
Florida	17,743	15,138
Georgia	147,832	144,807
Idaho	36,551	17,468
Illinois	563,760	308,900
Indiana	264,648	175,371
Iowa	589,118	442,091
Kansas	128,587	105,675
Kentucky	57,850	49,668
Louisiana	61,324	28,434
Maryland	18,847	16,785
Massachusetts	2,448	2,448
Michigan	38,006	26,905
Minnesota	412,151	339,159
Mississippi	39,065	38,505
Missouri	119,168	89,936
Montana	51,750	33,404
Nebraska	230,430	179,219
New York	38,958	36,076
North Carolina	48,455	31,187
North Dakota	178,660	140,063
Ohio	101,787	89,950
Oklahoma	28,768	17,808
Oregon	49,122	35,178
Pennsylvania	32,577	32,577
South Dakota	183,596	145,805

Continued

Appendix Table 2— **Cooperatives' business volume[1] by commodity and State, 1997[2] (continued)**

State	Business volume Gross	Net	State	Business volume Gross	Net
	1,000 dollars			1,000 dollars	
CROP PROTECTANTS (Continued)			**FEED** (Continued)		
Tennessee	121,576	63,593	Virginia	126,285	112,767
Texas	72,520	61,396	Washington	115,187	39,378
Utah	17,115	6,815	West Virginia	23,354	20,292
Virginia	27,983	23,849	Wisconsin	503,268	325,145
Washington	57,496	39,351	Wyoming	6,743	6,743
West Virginia	3,536	3,162	Other States	352,867	304,629
Wisconsin	185,899	134,394	Foreign[3]	193,883	104,385
Wyoming	12,998	2,943	United States	8,147,076	5,987,963
Other States	62,632	50,741			
Foreign[3]	37,433	1,989	**FERTILIZER**		
United States	4,350,820	3,125,481	Alabama	140,551	97,491
			Arkansas	226,377	115,427
FEED			California	137,921	116,222
Alabama	338,793	315,798	Colorado	129,841	87,280
Arkansas	158,530	92,611	Florida	121,903	40,698
California	187,196	126,481	Georgia	123,844	119,788
Colorado	72,726	51,488	Idaho	63,479	30,265
Florida	128,822	126,750	Illinois	923,191	465,614
Georgia	458,719	456,231	Indiana	581,176	294,916
Idaho	41,137	15,256	Iowa	965,166	630,753
Illinois	359,625	265,816	Kansas	401,188	300,441
Indiana	370,372	165,264	Kentucky	115,867	101,826
Iowa	1,154,985	796,087	Louisiana	57,725	28,130
Kansas	276,163	201,158	Maryland	30,097	26,865
Kentucky	58,440	49,681	Massachusetts	3,906	3,906
Louisiana	59,495	36,196	Michigan	66,579	40,663
Maryland	44,966	40,815	Minnesota	742,113	455,242
Massachusetts	20,830	20,830	Mississippi	60,176	58,824
Michigan	63,111	57,524	Missouri	359,335	258,577
Minnesota	761,391	544,895	Montana	139,104	76,387
Mississippi	55,658	44,760	Nebraska	493,719	337,351
Missouri	299,859	205,005	New York	55,256	55,256
Montana	15,559	15,326	North Carolina	64,028	53,976
Nebraska	268,865	174,314	North Dakota	447,229	266,509
New York	141,070	133,055	Ohio	193,072	130,025
North Carolina	125,152	110,381	Oklahoma	152,297	97,109
North Dakota	69,785	56,579	Oregon	82,853	55,591
Ohio	144,594	144,217	Pennsylvania	51,059	51,059
Oklahoma	113,456	81,950	South Dakota	294,118	187,741
Oregon	118,597	26,758	Tennessee	243,241	111,736
Pennsylvania	123,139	122,613	Texas	261,030	163,351
South Dakota	256,153	208,874	Utah	50,156	28,457
Tennessee	212,035	116,438	Virginia	75,620	68,443
Texas	230,737	177,780	Washington	70,275	49,647
Utah	95,528	93,694	West Virginia	8,766	7,867

Continued

Appendix Table 2— **Cooperatives' business volume[1] by commodity and State, 1997[2]** (continued)

State	Business volume Gross	Net	State	Business volume Gross	Net
	1,000 dollars			*1,000 dollars*	
FERTILIZER (continued)			**PETROLEUM** (continued)		
Wisconsin	345,208	204,306	Wisconsin	544,859	462,117
Wyoming	27,012	5,313	Wyoming	115,456	70,425
Other States	115,513	90,104	Other States	142,604	141,695
Foreign[3]	441,353	57,844	Foreign[3]	159,628	60,098
United States	8,861,348	5,371,001	United States	10,591,991	6,756,086
PETROLEUM			**SEED**		
Alabama	40,951	4,865	Alabama	32,394	20,878
Arkansas	203,445	96,019	Arkansas	43,703	26,839
California	6,525	6,525	California	22,195	22,195
Colorado	359,301	195,946	Colorado	2,540	2,540
Florida	11,778	9,734	Florida	6,302	5,650
Georgia	81,302	15,802	Georgia	15,592	15,433
Idaho	147,369	85,963	Idaho	16,787	9,497
Illinois	677,455	478,585	Illinois	80,013	49,319
Indiana	517,681	298,128	Indiana	48,825	24,130
Iowa	1,018,391	644,873	Iowa	67,446	45,695
Kansas	1,246,265	393,733	Kansas	11,371	11,371
Kentucky	190,514	115,747	Kentucky	28,322	25,363
Louisiana	23,793	12,729	Louisiana	21,296	10,172
Maryland	73,838	66,808	Maryland	10,584	9,431
Massachusetts	15,964	15,964	Massachusetts	1,339	1,339
Michigan	149,385	72,226	Michigan	10,165	9,951
Minnesota	649,378	553,430	Minnesota	53,603	45,510
Mississippi	20,348	19,171	Mississippi	18,708	18,655
Missouri	598,669	456,450	Missouri	57,319	27,945
Montana	195,483	146,099	Montana	7,189	5,621
Nebraska	652,116	413,551	Nebraska	12,807	10,251
New York	245,760	244,944	New York	23,328	23,328
North Carolina	20,714	17,753	North Carolina	14,668	12,363
North Dakota	357,469	275,332	North Dakota	35,156	32,755
Ohio	143,449	119,272	Ohio	26,245	26,245
Oklahoma	306,110	131,932	Oklahoma	4,200	4,200
Oregon	170,484	121,359	Oregon	11,508	11,470
Pennsylvania	225,325	224,828	Pennsylvania	17,520	17,520
South Dakota	358,376	254,895	South Dakota	17,815	14,932
Tennessee	171,580	73,270	Tennessee	66,640	39,971
Texas	233,786	134,318	Texas	19,079	19,026
Utah	83,524	19,389	Utah	3,072	3,072
Virginia	229,668	144,610	Virginia	25,757	23,260
Washington	180,282	136,616	Washington	24,248	23,252
West Virginia	22,966	20,885	West Virginia	4,032	3,648

Continued

Appendix Table 2— **Cooperatives' business volume[1] by commodity and State, 1997[2] (continued)**

State	Business volume Gross	Net	State	Business volume Gross	Net
	1,000 dollars			*1,000 dollars*	
SEED (Continued)			**MISCELLANEOUS SUPPLIES[6]** (Continued)		
Wisconsin	38,583	28,478	Wisconsin	244,176	228,306
Wyoming	752	733	Wyoming	39,896	37,643
Other States	20,425	19,962	Other States	168,112	139,319
Foreign[3]	3,835	349	Foreign[3]	57,806	12,766
United States	925,364	702,351	United States	4,199,141	3,237,745
MISCELLANEOUS SUPPLIES[6]			**TOTAL FARM SUPPLIES**		
Alabama	177,796	78,006	Alabama	777,030	562,184
Arkansas	133,948	92,393	Arkansas	951,729	517,121
California	125,649	96,002	California	516,431	394,068
Colorado	59,185	45,900	Colorado	664,808	412,221
Florida	102,041	59,157	Florida	388,589	257,128
Georgia	90,330	69,199	Georgia	917,619	821,261
Idaho	47,014	39,178	Idaho	352,337	197,628
Illinois	144,296	86,622	Illinois	2,748,339	1,654,856
Indiana	69,488	53,202	Indiana	1,852,190	1,011,011
Iowa	228,635	165,002	Iowa	4,023,742	2,724,501
Kansas	127,735	93,563	Kansas	2,191,310	1,105,942
Kentucky	73,472	61,590	Kentucky	524,467	403,875
Louisiana	47,297	33,846	Louisiana	270,930	149,507
Maryland	37,771	33,930	Maryland	216,103	194,635
Massachusetts	9,877	9,877	Massachusetts	54,364	54,364
Michigan	107,729	93,698	Michigan	434,975	300,967
Minnesota	269,417	220,755	Minnesota	2,888,053	2,158,991
Mississippi	60,783	60,783	Mississippi	254,737	240,698
Missouri	99,029	59,329	Missouri	1,533,379	1,097,241
Montana	64,558	59,404	Montana	473,643	336,242
Nebraska	115,054	95,068	Nebraska	1,772,992	1,209,755
New York	161,401	139,200	New York	665,772	631,857
North Carolina	48,801	36,697	North Carolina	321,818	262,356
North Dakota	107,468	98,070	North Dakota	1,195,766	869,309
Ohio	105,967	87,222	Ohio	715,115	596,930
Oklahoma	45,369	32,198	Oklahoma	650,201	365,199
Oregon	141,584	136,818	Oregon	574,149	387,174
Pennsylvania	107,723	107,558	Pennsylvania	557,344	556,156
South Dakota	90,354	77,517	South Dakota	1,200,412	889,764
Tennessee	206,677	111,438	Tennessee	1,021,748	516,447
Texas	102,734	82,174	Texas	919,886	638,045
Utah	48,096	41,981	Utah	297,492	193,408
Virginia	172,187	136,895	Virginia	657,499	509,823
Washington	127,128	95,932	Washington	574,617	384,177
West Virginia	32,559	29,509			

Continued

Appendix Table 2— **Cooperatives' business volume[1] by commodity and State, 1997[2]** (continued)

State	Business volume Gross	Net
	1,000 dollars	
TOTAL FARM SUPPLIES (Continued)		
West Virginia	95,213	85,364
Wisconsin	1,861,993	1,382,745
Wyoming	202,858	123,799
Other States	862,152	746,450
Foreign[3]	893,937	237,431
United States	37,075,740	25,180,628
SERVICES PROVIDED:[7]		
Alabama	23,784	23,784
Arizona	26,320	26,320
Arkansas	89,100	89,100
California	529,691	529,691
Hawaii	8,354	8,354
Illinois	207,262	207,262
Iowa	266,655	266,655
Kansas	115,498	115,498
Louisiana	20,141	20,141
Michigan	73,527	73,527
Minnesota	260,313	260,313
Mississippi	97,423	97,423
Nebraska	136,561	136,561
New Mexico	6,015	6,015
New York	152,576	152,576
North Carolina	25,966	25,966
North Dakota	48,603	48,603
Ohio	108,826	108,826
Oklahoma	35,753	35,753
Pennsylvania	26,177	26,177
Texas	295,661	295,661
Washington	162,380	162,380
Wisconsin	80,522	80,522
Other States	850,227	850,227
United States	3,647,334	3,647,334
TOTAL:		
Alabama	1,621,696	1,403,279
Alaska	124,698	64,651
Arizona	786,643	737,821
Arkansas	2,464,900	1,982,686
California	9,755,905	9,108,671
Colorado	1,273,093	1,003,727
Connecticut	266,727	205,367
Delaware	108,920	98,417
Florida	2,663,194	2,485,382
Georgia	2,012,445	1,899,906
TOTAL: (Continued)		
Hawaii	130,603	114,572
Idaho	1,492,150	1,212,490
Illinois	7,514,170	6,033,807
Indiana	3,464,785	2,539,867
Iowa	12,586,592	10,940,936
Kansas	5,294,385	3,969,584
Kentucky	1,210,076	1,078,217
Louisiana	992,690	791,516
Maine	218,117	216,711
Maryland	463,990	416,798
Massachusetts	657,492	655,138
Michigan	2,588,057	2,317,907
Minnesota	11,881,299	9,770,774
Mississippi	1,203,917	1,174,399
Missouri	4,490,879	3,718,435
Montana	1,002,676	734,790
Nebraska	5,911,565	5,073,468
New Jersey	356,512	345,035
New Mexico	621,939	608,117
New York	3,130,745	2,595,476
North Carolina	963,015	885,314
North Dakota	4,005,161	3,301,100
Ohio	3,229,342	2,998,144
Oklahoma	1,424,333	1,103,286
Oregon	2,496,615	2,090,742
Pennsylvania	2,188,827	1,983,374
South Carolina	387,962	377,563
South Dakota	3,451,889	2,825,833
Tennessee	1,230,059	721,691
Texas	4,564,908	3,668,972
Utah	806,244	690,794
Vermont	429,234	396,927
Virginia	905,881	742,131
Washington	3,646,217	3,285,700
West Virginia	176,530	161,980
Wisconsin	7,526,352	6,549,250
Wyoming	274,702	195,538
Other States	173,738	162,559
Foreign[3]	2,500,652	1,231,643
U.S.	126,672,521	106,670,486

See footnotes next page

Footnotes to Appendix Table 2.

[1] Data covering operations of cooperatives whose business years ended during calendar 1997. Includes independent local cooperatives, federations, centralized regional cooperatives, and cooperatives with mixed organizational structures. The volume of products marketed was allocated to the State in which they were originated and the volume of farm supplies was allocated to the State in which they were sold; service volume and other income was allocated to the State of origin when services related to farm products marketed or to the State of destination when related to farm supplies sold.

[2] Gross business volume includes sales between cooperatives, while net business volume excludes sales. States listed had more than two cooperatives handling the commodity or farm supply or where disclosure was not a problem. Totals may not add due to rounding.

[3] Includes value of farm products imported, farm supplies exported, services related to imported farm products or exported farm supplies, sales to domestic military installations, or sales of farm products not received directly from member-patrons.

[4] Includes eggs, turkeys, ratite, squab, and related products.

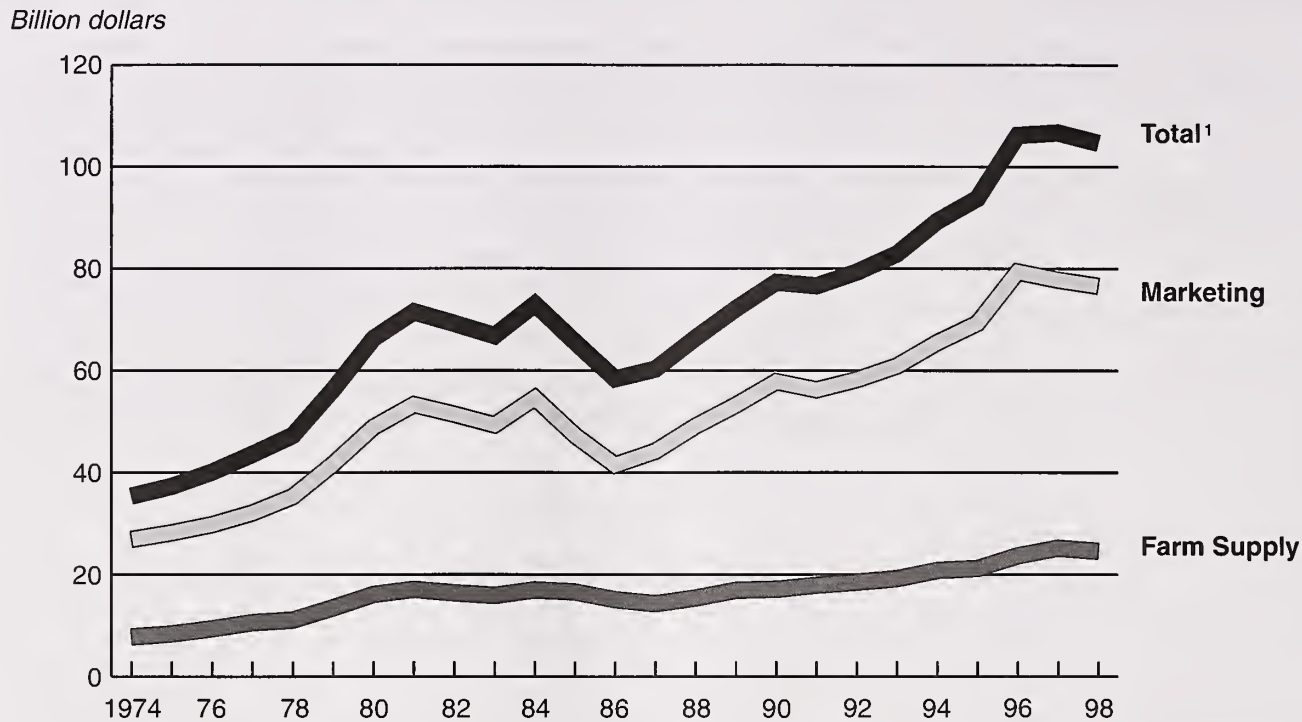
[5] Includes forest products, hay, hops, nursery stock, fish, coffee, seed marketed for growers, and other farm products not separately classified. Also includes manufactured food products and resale items marketed by cooperatives.

[6] Includes building supplies, containers and packaging supplies, farm machinery and equipment, animal health products, automotive supplies, food, hardware, chicks, and other supplies not separately classified.

[7] Income from services related to marketing and purchasing activities, but not included in the volumes reported for these activities.

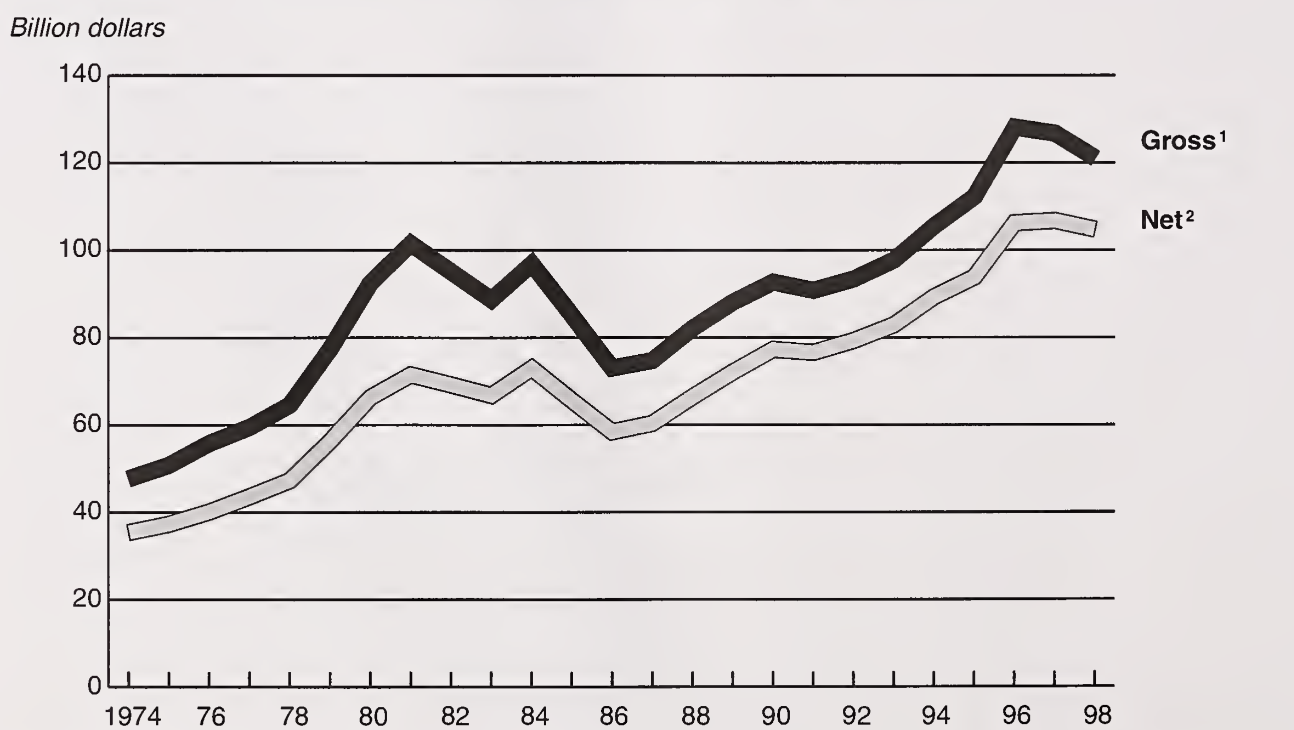
Appendix Figures

Appendix Figure 1— **Cooperatives' Net Business Volume, 1974-98**



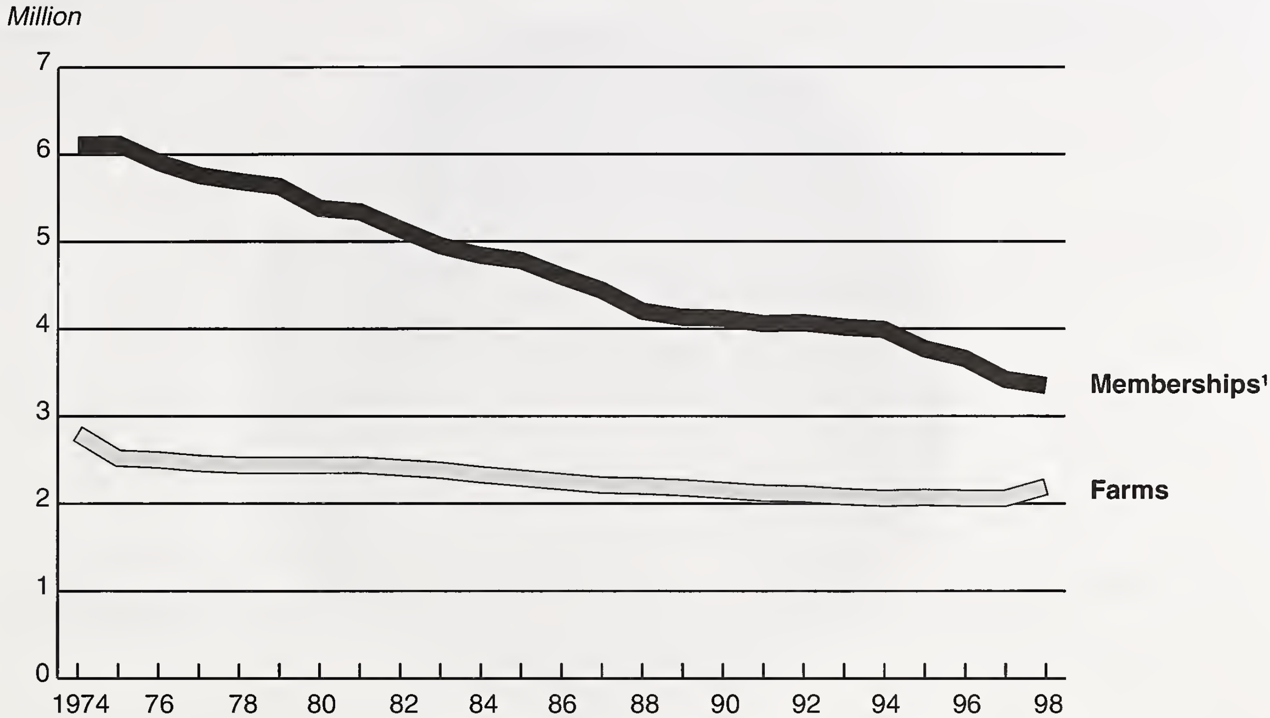
[1] Total includes value of related services and other income.

Appendix Figure 2— **Cooperatives' Gross and Net Business Volumes, 1974-98**



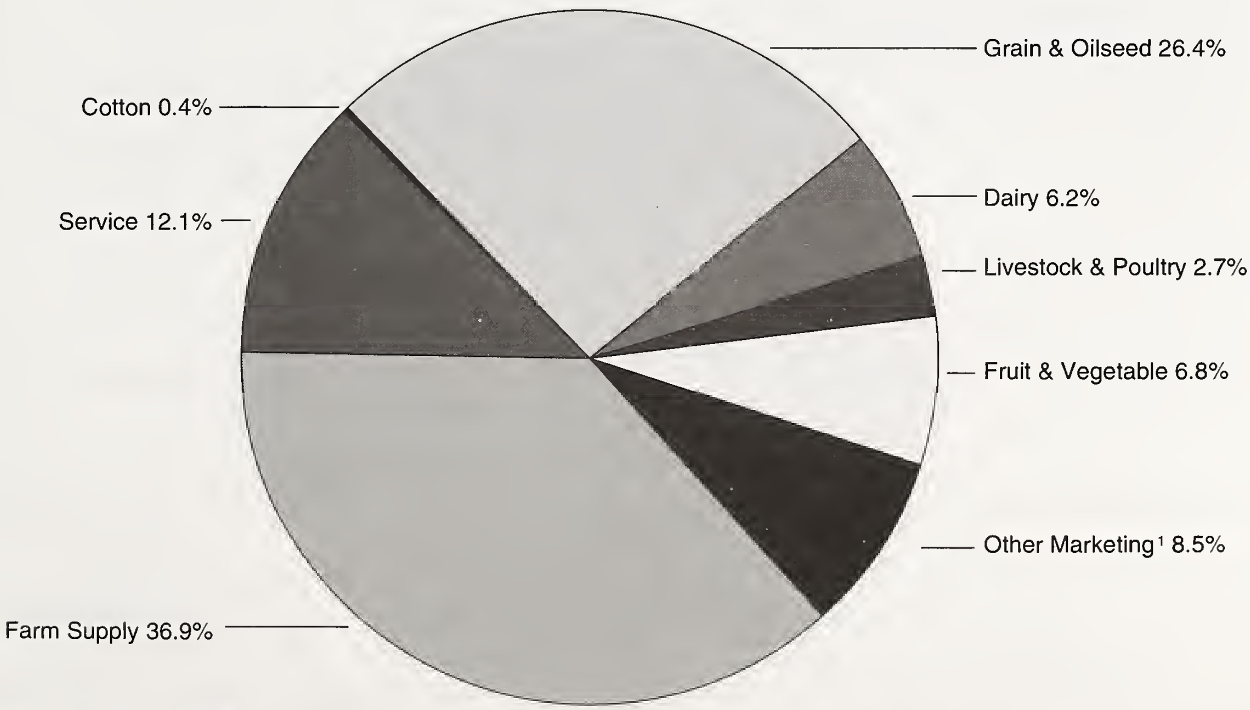
[1] Includes intercooperative business. [2] Excludes intercooperative business.

Appendix Figure 3— **U.S. Farms and Farmer Cooperative Memberships, 1974-98**



[1] Memberships were higher than farm numbers because many farmers belonged to more than one cooperative.

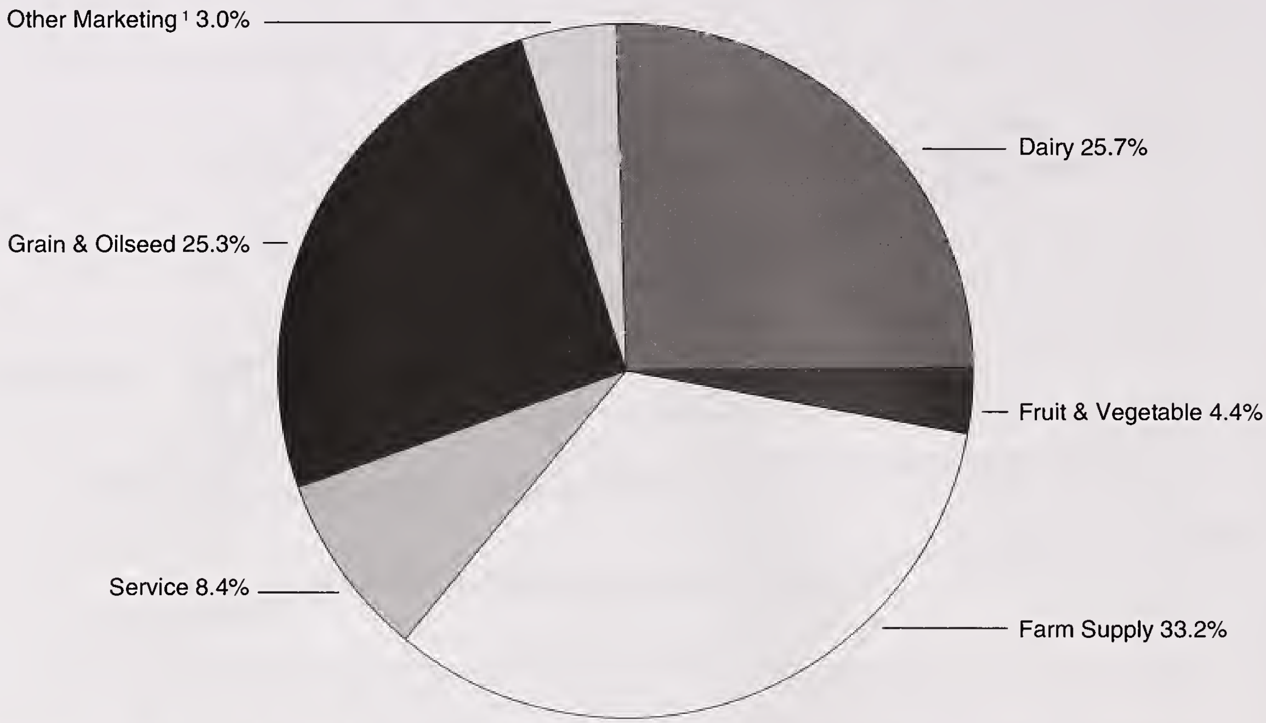
Appendix Figure 4— **Distribution of Farmer Cooperatives by Type, 1998**



Percent based on 3,651 cooperatives.

[1] Includes dry bean and pea, wool and mohair, nuts, rice, sugar, fishery, and other miscellaneous marketing cooperatives.

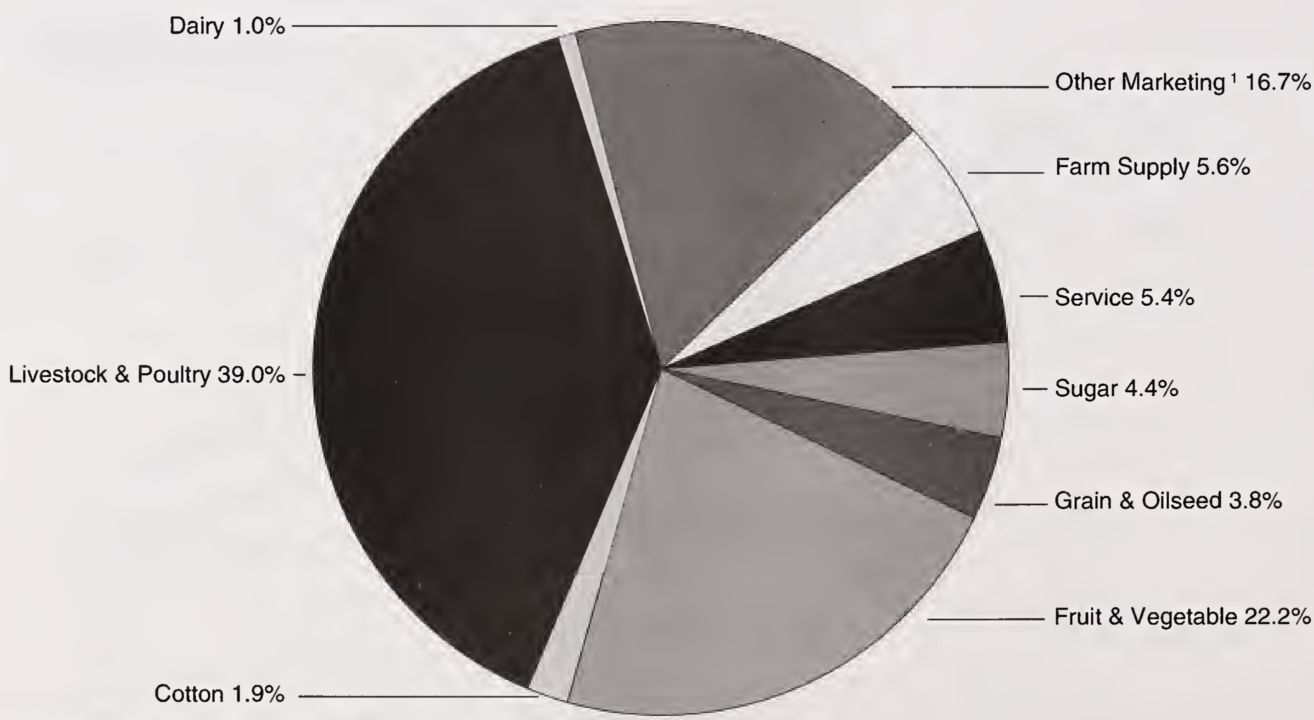
Appendix Figure 5— **Distribution of Total Net Income by Type of Cooperative, 1998**



Percent based on net income of $1.74 billion.

[1] Includes dry bean and pea, nut, wool and mohair, tobacco, rice, sugar, fishery, and other miscellaneous marketing cooperatives.

Appendix Figure 6— **Distribution of Total Losses by Type of Cooperative, 1998**



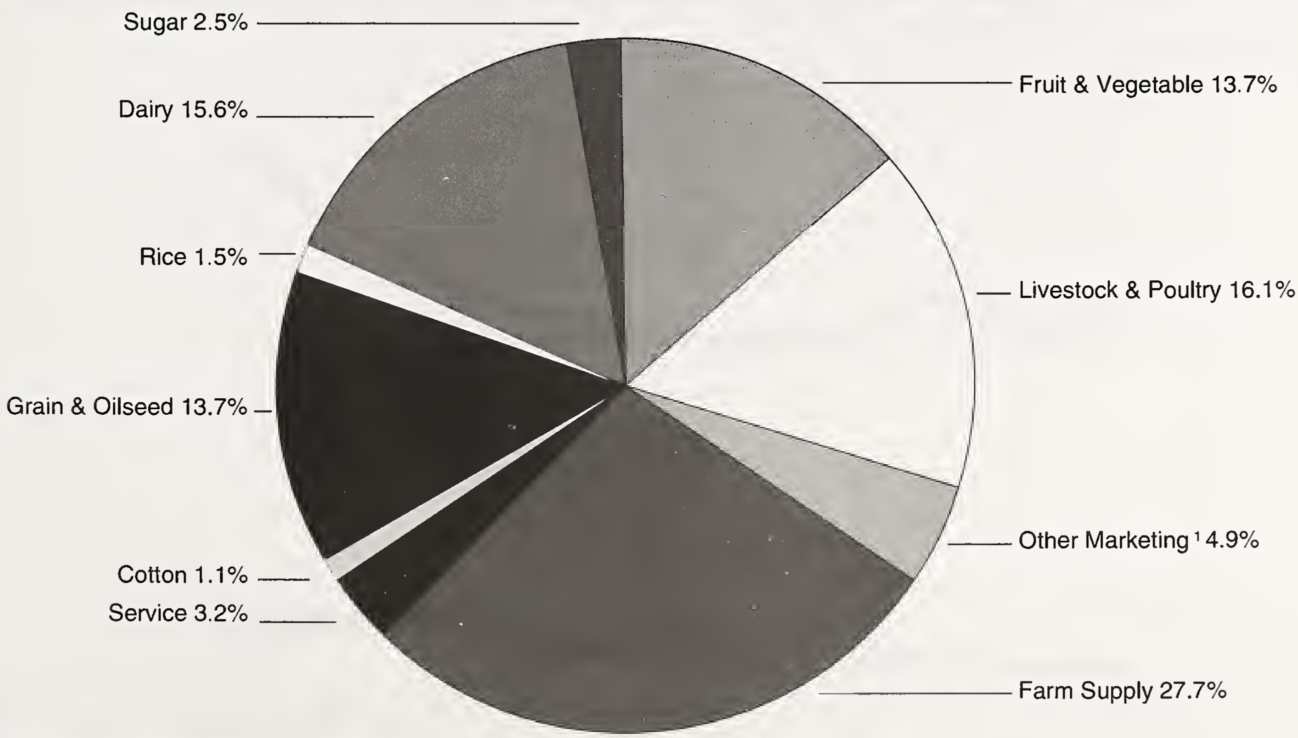
Percent based on losses of $379.9 million.

[1] Includes dry bean and pea, nut, wool and mohair, tobacco, rice, fishery, and other miscellaneous marketing cooperatives.

Appendix Figure 7— **Distribution of Total Net Worth by Type of Cooperative, 1998**

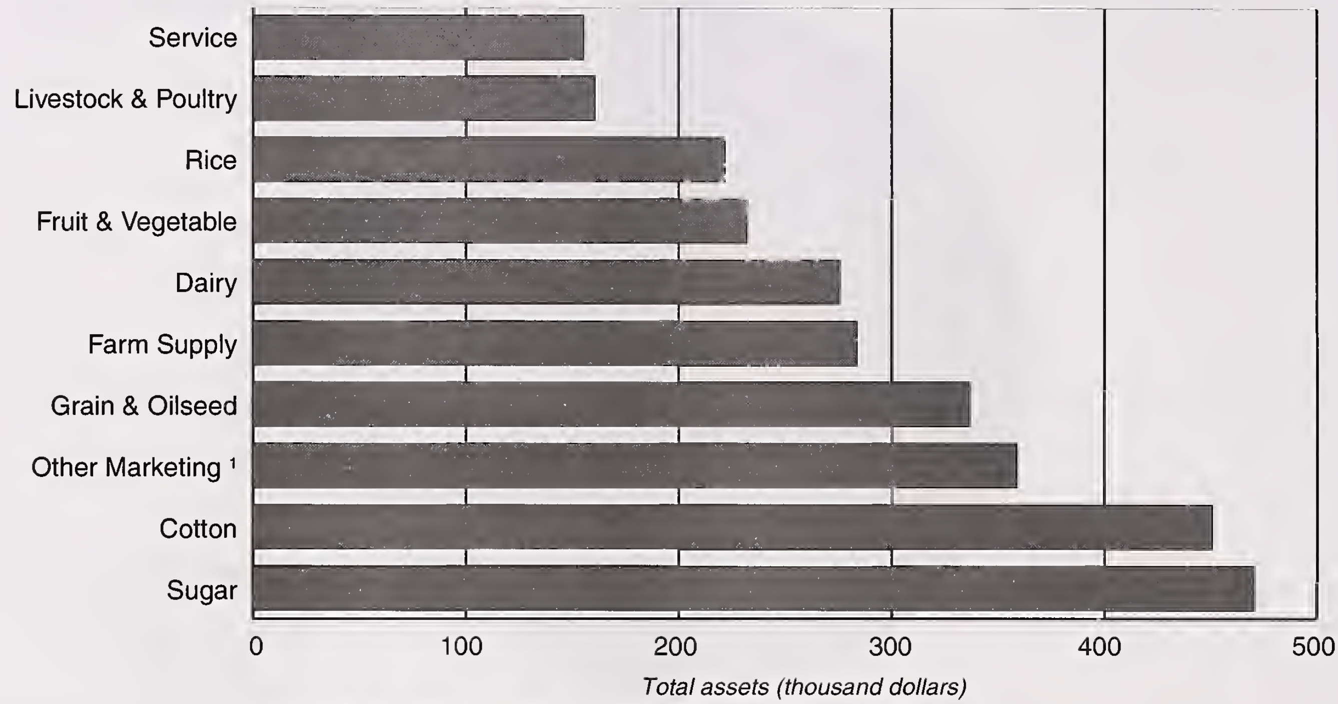
Percent based on net worth of $20 billion.
[1] Includes dry bean and pea, nut, wool and mohair, tobacco, fishery, and other miscellaneous marketing cooperatives.

Appendix Figure 8— **Distribution of Total Full-Time Employees by Type of Cooperative, 1998**



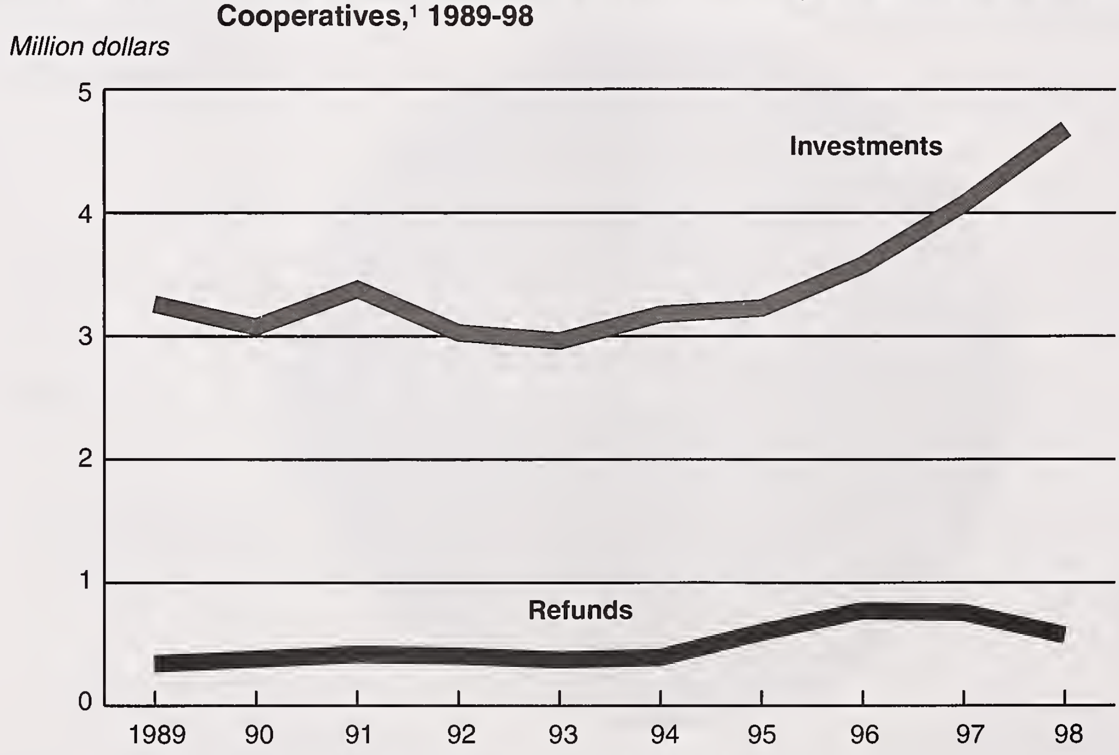
Percent based on 173,791 full-time employees.
[1] Includes dry bean and pea, nut, wool and mohair, tobacco, fishery, and other miscellaneous marketing cooperatives.

Appendix Figure 9— **Assets Per Full-Time Employee by Type of Cooperative, 1998**



[1] Includes dry bean and pea, nut, tobacco, wool and mohair, fishery, and other miscellaneous marketing cooperatives.

Appendix Figure 10— **Cooperatives' Investments in and Patronage Refunds Received From Other Cooperatives,[1] 1989-98**



[1] Includes other farmer cooperatives, CoBank, and Banks for Cooperatives.

U.S. Department of Agriculture

Rural Business–Cooperative Service

Stop 3250

Washington, D.C. 20250-3250

Rural Business–Cooperative Service (RBS) provides research, management, and educational assistance to cooperatives to strengthen the economic position of farmers and other rural residents. It works directly with cooperative leaders and Federal and State agencies to improve organization, leadership, and operation of cooperatives and to give guidance to further development.

The cooperative segment of RBS (1) helps farmers and other rural residents develop cooperatives to obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs. RBS also publishes research and educational materials and issues *Rural Cooperatives* magazine.